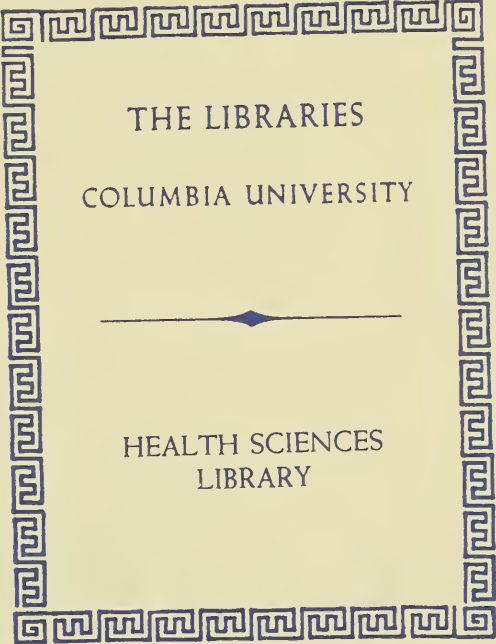




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COLUMBIA UNIVERSITY

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*College of
Physicians and Surgeons*

OF THE FACULTY OF MEDICINE

1957-1958



COLUMBIA-PRESBYTERIAN MEDICAL CENTER

630 WEST 168TH STREET • NEW YORK 32 • NEW YORK

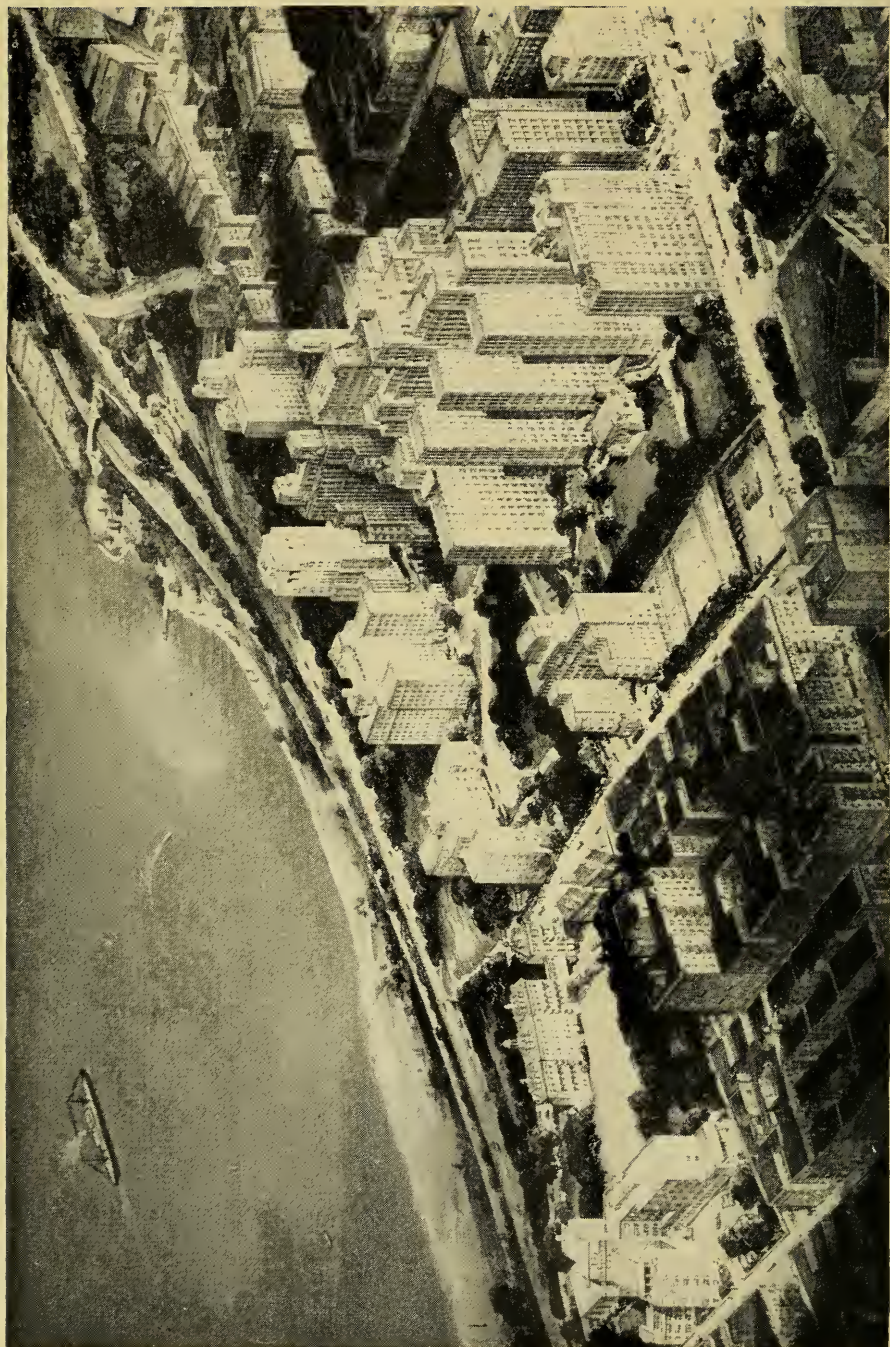
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View of Bard Hall from Riverside Drive



Columbia-Presbyterian Medical Center

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THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. In 1945 the medical faculty was made responsible for the educational programs in Medicine, Dental and Oral Surgery, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF DENTAL AND ORAL SURGERY

The School of Dental and Oral Surgery became a part of the Faculty of Medicine on July 1, 1945.

The course in dentistry covers four academic years leading to the degree of Doctor of Dental Surgery. The greater part of the first two years of the curriculum is taken in the fundamental science departments of the College of Physicians and Surgeons.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive medicine and community organization for health services of all types.

DEPARTMENT OF NURSING

The establishment in 1937 of the Department of Nursing of the Faculty of Medicine marked another step in the close cooperation between Presbyterian Hospital and Columbia University in the education of personnel for the medical and allied professions. The

Board of Trustees of the Presbyterian Hospital has considered the education of nurses one of its primary responsibilities since 1892, when the School of Nursing was founded under the direction of Anna C. Maxwell.

The basic course in nursing is an integral part of a larger educational program designed not only as a sound preparation for the usual practice of bedside nursing, but also as a foundation for further education in the fields of public health nursing, school and industrial nursing, nursing school administration, and other phases of nursing practice and education.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Proficiency in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 48.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission, should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, X-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, X-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors in Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 192 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 110 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 168-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 300 beds for the treatment and study of cancer. A program of research and of graduate and under-

graduate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,611 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 316 beds for chest diseases under the Columbia division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,380 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains 100 research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 280 patients, including 60 in the Country Home at Far Rockaway.

Institute for the Crippled and Disabled, founded in May, 1917, was the first modern rehabilitation center established in the United States. The program of rehabilitation at the Institute is integrated with the orthopedic, medical, and other professional activities of the Medical Center through the Department of Physical Medicine and Rehabilitation of the University and a corresponding service in Presbyterian Hospital.

Margaret Hague Maternity Hospital, a unit of the Jersey City Medical Center, has a capacity of 249 teaching beds. An affiliation with Columbia University was arranged in 1935 for postgraduate instruction in obstetrics.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 112 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 890 beds devoted to the treatment of chronic diseases. The neurological division of 160 beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,002 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for elective undergraduate work in pediatrics and obstetrics. There are 432 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 430 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 567 beds, including 80 beds for

infants and children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In Hospital." It has 192 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately two hundred and ten thousand volumes of books and journals, some five thousand pamphlets, and about two thousand lantern slides on the history of medicine. More than twenty-five hundred periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Dentistry, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing more than two million volumes, are open to all students of medicine. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. (The schedule is modified slightly in the summer.)

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The first, second, and third floors are arranged to accommodate women students.

Rates for accommodations range from \$204 to \$471 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal prepaid board plan. The present rate is \$350 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The entering class will register September 12-14, 1957. Application for admission can be made for the next incoming class only, and requests for application forms should be addressed to the Dean. Every application must be accompanied by a check or money order for \$5.00, payable to Columbia University, to cover the cost of processing the application. The fee is not returnable.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is preferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction.

GRADUATE INSTRUCTION

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for this purpose for any period of the calendar year. The University fee for each such period not longer than a winter or spring session is \$50.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays, and on Saturday from 9 a.m. to 12 m. The periods set aside for registration in each session are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the University fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of \$3.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to

University fee

For all students for one academic year, payable in two installments	\$ 48.00
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Tuition fee

For the full course in medicine for one academic year (or equivalent), payable in two installments	900.00
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For students not enrolled for the full course, fees are to be assessed by the change at any time at the discretion of the Trustees:

Registrar as provided by the University statutes.

Medical school athletic and recreational fee

This fee entitles students to use without charge the athletic and recreational facilities of Bard Hall, the residence for medical students. For all students, per academic year, payable in two installments

10.00

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year

25.00

Application fees

For processing application for admission

5.00

For each deficiency or special examination

10.00

For renewal of application for a degree (see below)

1.00

Late fees

For late registration

3.00

For late application for each deficiency or special examination

5.00

For late application, or renewal of application, for a degree

5.00

Rebates

The University fee, the student health and hospital fee, application fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, any unusual amount of breakage will be charged.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for \$50 payable to Columbia University to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his \$50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to renewal for a fee of \$1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are required to provide themselves with microscopes of a satisfactory type. See page 53 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$ 983	\$ 983
Room	340	204
Board	650	600
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	\$2,673	\$2,237

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 52-54.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of \$10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-220, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-second year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of a director.

A faculty board of advisers assists the students and the director in the operation and support of the club program. Every matriculated student in the School of Medicine is automatically a member, and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the session for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

- I. Recommended for advancement
- II. Recommended for readmission to the same class
- III. Recommended neither for advancement nor readmission
 - A. Because of academic failure
 - B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 24 and 25, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Doctor of Dental Surgery, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, occupational therapy, and dental hygiene. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the Schools of Dental and Oral Surgery and of Public Health and Administrative Medicine, of Nursing, and of the Courses for Physical and Occupational Therapists outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who in the judgment of the Professor of Obstetrics and Gynecology are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about \$3,100.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is normally \$2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about \$3,000.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, A.M., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The normal stipend is \$4,500.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about \$900, the annual income of the fund.

Eckhouse. The Minnie Eckhouse Fellowship in neurological surgery enables the holder to follow the study of neurological surgery after graduation.

Ellis. Two George W. Ellis Fellowships are awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of each fellowship is about \$2,000, the annual income of the fund.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the Executive Officer of the Department of Microbiology. The value of the fellowship is approximately \$2,000.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the Executive Officer of the Department of Biochemistry. The appointment is made from among students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about \$1,800, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a

graduate of not more than six years' standing, to enable the recipient to study the diseases of children in this country or abroad. The value of the fellowship is about \$1,500, the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The value of the fellowship is about \$2,500, the annual income of the fund. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about \$1,500, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about \$1,000, the income of the fund which has accrued during four years. It will be awarded next in 1957-1958.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the Executive Officer of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about \$2,500, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory of George Peters and Charles Costello by the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

St. John-Princeton. The St. John-Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is \$200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the best thesis on puerperal fever. The value of the prize is about \$70, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Executive Officer of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about \$30.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about \$50, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about \$50, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P & S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about \$260, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about \$200, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about \$260. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one session of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or of the Bursar. Applications for the winter session should be filed by September 15; for the spring session, by January 15.

In memory of John Adams Mahew, Class of 1955, limited funds are available periodically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation to meet their responsibilities to patients and the public.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who are specially qualified by a university level of training in one of the specialized fields of practice. *Only current residents appointed in one of the affiliated hospitals and Fellows registered at Columbia University are eligible for registration for the degree.* Those with proper qualifications who wish to apply for admission to register for the degree may do so on the recommendation of the executive officer of the department concerned.

The fields of graduate study are:

Anesthesiology	Pathology
Dermatology	Pediatrics
Medicine	Physical medicine
Neurology	Plastic surgery
Neurological surgery	Psychiatry
Obstetrics and gynecology	Radiology
Ophthalmology	Surgery
Orthopedic surgery	Urology
Otolaryngology	

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which

require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who may reasonably be regarded as prepared to benefit by the advanced instruction.

Short courses are available at the Margaret Hague Maternity Hospital of the Jersey City Medical Center, Montefiore Hospital, Mount Sinai Hospital, the Hospital for Joint Diseases, Neurological Institute, New York State Psychiatric Institute, Presbyterian Hospital, Tuberculosis Division of Bellevue Hospital, the School of Public Health and Administrative Medicine, and the College of Physicians and Surgeons. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

First Year

REQUIRED COURSES		HOURS
<i>Anatomy 101FS</i>	Microscopic anatomy	158
<i>Anatomy 102FST</i>	Systematic human anatomy	303
<i>Anatomy 103F</i>	Embryology	18
<i>Anatomy 106ST</i>	Neuroanatomy	96
<i>Anatomy 114FFo</i>	Correlative clinics	24
<i>Biochemistry 101Fo</i>	Introductory biochemistry	181
<i>Physiology 101Fo</i>	Human physiology	226
<i>Psychiatry 101FST</i>	Introduction to human behavior	20
<i>Public Health 201</i>	Medical statistics	12
TOTAL		1,038

Second Year

REQUIRED COURSES		HOURS
<i>Anatomy 105FS</i>	Clinical anatomy	20
<i>Medicine 101T</i>	Elementary physical diagnosis	88
<i>Medicine 102S</i>	Elementary clinical pathology	88
<i>Medicine 103T</i>	Introductory medicine	10
<i>Microbiology 101F</i>	General microbiology	140
<i>Microbiology 105F</i>	Infection, immunity, etc.	52
<i>Neurology 101T</i>	Neurological examination	20
<i>Pathology 101FST</i>	General and special pathology	344
<i>Pathology 102S</i>	Neuropathology	33
<i>Pathology 103FS</i>	Medicine-pathology case study	33
<i>Pharmacology 101ST</i>	General and special pharmacology	121
<i>Psychiatry 102S</i>	Psychopathology	10
<i>Public Health 101S</i>	Parasitic diseases	51
<i>Surgery 101S</i>	Introduction to surgery	11
<i>Surgery 102T</i>	Principles of surgery	60
	TOTAL	1,081

Third Year

<i>Dermatology 203-204</i>	34
<i>Medicine 201-202, 203-204, 205-206</i>	447
<i>Neurology 207-208, 209-210</i>	38
<i>Obstetrics and Gynecology 201-202</i>	56
<i>Ophthalmology 201-202, 203-204</i>	42
<i>Orthopedic Surgery 201-202, 203-204</i>	80
<i>Otolaryngology 201-202, 203</i>	40
<i>Pediatrics 201-202, 207-208</i>	208
<i>Psychiatry 203-204</i>	147
<i>Public Health 203-204</i>	76
<i>Radiology 201-202, 206</i>	24
<i>Surgery 201-202, 204-205, 211-212</i>	219
<i>Electives</i>	385
	TOTAL 1,796

Fourth Year

<i>Dermatology 205-206</i>	28
<i>Medicine 205-206, 207-208, 209-210, 216, 221-222, 223-224, 225-226</i>	481
<i>Neurology 202</i>	30
<i>Obstetrics and Gynecology 203-204</i>	280
<i>Orthopedic Surgery 205-206</i>	24
<i>Pediatrics 203-204</i>	140
<i>Pharmacology 202</i>	16
<i>Psychiatry 205</i>	15
<i>Radiology 203-204</i>	16
<i>Surgery 209-210, 213-214, 217-218, 219-220</i>	292
<i>Urology 201-202</i>	36
<i>Electives</i>	280
	TOTAL 1,638

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*acting executive officer*), E. T. Engle (*Obstetrics and Gynecology*), F. A. Mettler (*Neurology*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, H. O. Elftman, M. R. Murray (*Surgery*), C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professors: E. B. Kaplan, H. H. Shapiro

Assistant Professors: C. A. Ely, D. D. Johnson, M. L. Moss, G. D. Pappas, W. M. Rogers

Associates: E. A. MacDowell, F. A. Manginelli

Associate in Neurology: L. V. Lyons

Instructors: R. C. Drelich (*Dental and Oral Surgery*), J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman

Assistants: H. A. Fox, P. J. Goettler

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Engle, Smelser, Johnson, and assistants.

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, and assistants.

Anatomy 103F—Embryology. First year. 2 pts. Professors Copenhaver, Ely, Rogers, and Smelser.

Lectures and demonstrations dealing with the dynamics of vertebrate development, with particular reference to mammals and man.

Anatomy 105FS—Clinical anatomy. One hour a week for twenty weeks. Second year. 2 pts. Professor Rogers and members of the clinical staffs.

A course of lectures and demonstrations in which the more important phases of anatomy are reviewed by clinicians and discussed in relation to their application in different fields of clinical work.

Anatomy 106ST—Neuroanatomy. Lectures, demonstrations, and laboratory. First year. 6 pts. Professors Carpenter and Noback, and staff.

Anatomy 114FFo—Correlative clinics in anatomy, biochemistry, and physiology. First year. Professor Perera (*from Medicine*) in charge.

SUMMER SESSION 1957

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Elftman and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professors: V. Apgar, E. M. Papper (*executive officer*)

Assistant Professors: B. R. Fink, M. J. Frumin, E. C. Hanks, J. Henley, D. A. Holaday, J. Kreiselman,¹ L. C. Mark, S. H. Ngai, H. Rackow, H. Schwartz

Associates: N. A. Bergman, L. Brand, R. A. Jacobs, M. M. Kritchman, V. Lauderdale, S. Lynch, E. Salanitri, S. Silverman

Instructors: I. J. Chessar, R. M. Epstein, A. Levy, R. W. Patterson¹

Assistant in Pediatrics: L. S. James

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*executive officer*), D. Shemin, W. M. Sperry (*Psychiatry*), H. B. Waelsch (*Psychiatry*)

Associate Professors: M. Karshan (*Dental and Oral Surgery*), S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, D. B. Sprinson, I. B. Wilson (*Neurology*), S. Zamenhof

Assistant Professors: J. A. Behre, L. S. Dietrich (*Surgery*), M. Eisenberg, P. Feigelson (*Medicine*), H. B. Gillespie, E. Hirschberg (*Medicine*), A. L. Lajtha (*Psychiatry*), I. Mandl (*Microbiology*), H. Meltzer (*Psychiatry*), T. D. Price (*Urology*), H. S. Simms (*Pathology*), B. Weiss (*Psychiatry*)

Associates: E. Borek, W. Halpert, C. R. Harmison (*Pathology*), H. C. Lawler (*Neurology*)

Research Associates: M. Berger (*Psychiatry*), G. Brawerman, G. Cohen (*Medicine*), I. Danishefsky, P. Hoffman (*Medicine*), A. Linker (*Medicine*), M. E. Lombardo (*Urology*), V. Ross, H. Sachs (*Psychiatry*), H. T. Shigeura, S. Solomon (*Obstetrics and Gynecology*), P. Srinivasan, I. Sucher

Instructors: A. I. Krasna, S. L. Miller

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

¹ On leave.

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)

Assistant Professors: L. L. Abell (*Medicine*), E. H. Mosbach (*Medicine*)

Associate: M. M. Daly (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 111FFo—Correlative clinics in anatomy, biochemistry, and physiology. First year. Professor Loeb (*from Medicine*) in charge. See *Anatomy 114FFo*.

Biochemistry 211-212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215-216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Energetics and kinetics of enzyme action. Two hours. 3 pts. Professor Wilson.

The application of the principles of thermodynamics and kinetics to problems of enzyme action.

Biochemistry 229-230—Enzymes. Two hours. 3 pts. The staff.

Mechanism of enzyme action; systematic enzymology; enzymatic processes in organized biological structures.

Admission only with permission of the department.

Biochemistry 301-302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

SCHOOL OF DENTAL AND ORAL SURGERY

The bulletin of the School of Dental and Oral Surgery, describing the content of the course leading to a Doctor of Dental Surgery (D.D.S.) degree, and the bulletin of Post-graduate Courses for Dentists may be obtained from the Office of the Associate Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York 32, N. Y.

DERMATOLOGY

Professor: C. T. Nelson (*executive officer*)

Clinical Professor: P. Gross

Associate Professor of Clinical Dermatology: B. M. Kesten

Associate Clinical Professors: L. P. Barker, G. F. Machacek, J. L. Miller

Assistant Professor: M. Silva-Santiago

Assistant Clinical Professors: H. O. Curth, D. Moon-Adams, T. Rosenthal

Associate: W. Curth

Research Associate: J. H. Hill

Instructors: B. J. Chester, A. N. Domonkos, F. P. Lowenfish, R. M. Montgomery, C. F. Post, J. E. Ridgway, L. Schweich, M. H. Slatkin, M. B. Sloane

Assistants: M. Brodey, B. Dobias, J. T. Hearin, J. T. McCarthy.

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203-204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates. At Vanderbilt Clinic.

Dermatology 205-206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Dr. Chester, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Six hours per week for twelve weeks. 3 pts. Professor Silva-Santiago.
Hours to be arranged.

Dermatology 207-208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219-220—Histopathology of the skin. Professor Machacek.
Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: R. F. Loeb (*executive officer*)

Professor: F. M. Hanger, Jr.

Professor of Biochemistry: K. Meyer

Professor of Clinical Medicine: D. W. Atchley

Clinical Professors: F. R. Bailey, A. L. Barach, F. Dieuaide, H. Southworth

Clinical Professor of Psychiatry: G. E. Daniels

Associate Professors: S. E. Bradley, A. Gellhorn (*Delafield Hospital*), Y. Kneeland, Jr., G. A. Perera, J. V. Taggart

Associate Professors of Clinical Medicine: C. A. Flood, J. W. Jailer (*Obstetrics and Gynecology*), C. Ragan, J. C. Turner, S. C. Werner

Associate Clinical Professors: S. W. Lambert, W. B. Sherman

Assistant Professors: R. J. Cross, A. P. Fishman, A. I. Knowlton, D. L. Larson, P. A. Marks, E. F. Osserman, D. Schachter, D. F. Tapley, R. Wégria

Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg

Assistant Professor of Clinical Medicine: A. R. Lamb, Jr.

Assistant Professors of Microbiology: C. Howe, C. Morgan

Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. D. Dunham, S. C. Fisk, W. A. Gardner, M. Goldenberg, M. J. Lepore, P. C. Lloyd, T. B. Russell, P. B. Sheldon, H. B. Wilcox, Jr.

Associates: H. Aranow, J. M. Baldwin, Jr., G. P. Bradley, S. W. Cosgriff, C. J. Dalton, F. E. Demartini, R. B. Duane, A. W. Grokoest, H. O. Heinemann, H. H. Holmes, J. H. Laragh, E. Leifer, E. N. Loeb, R. B. McKittrick, G. W. Melcher, I. Mufson, G. B. Phillips (*Biochemistry*), K. L. Pines, C. H. Plimpton, H. M. Ranney, G. M. Turino, H. O. Wheeler

Research Associate: H. D. Grossfeld

Research Associates in Biochemistry: G. Cohen, P. Hoffman, A. Linker

Instructors: S. F. Alexander, C. Alston, A. T. Baker, G. J. Beck, D. N. Brown, R. M. Carey, N. P. Christy, H. P. Colmore, C. Gerbi, I. H. Goldberg, G. C. Hennig, G. A. Hyman, G. S. Jones, R. A. Kritzler, R. W. Lamont-Havers, K. A. McClane, G. H. McCormack, Jr., J. P. Malia, J. A. L. Mathers, E. Middleton, Jr., R. Muller, H. W. Neuberg, F. M. Pruyn, A. Sahagian-Edwards, F. H. Shillito, R. Stock, T. B. Tomasi, T. L. Tyson, J. E. Ullmann, C. R. Wise, P. Wolkonsky

Assistants: H. M. Anderson, J. W. Barry, E. Bauman, J. T. Beaty, A. E. Brewer, N. J. Conan, Jr., C. Cooke, J. A. Coss, Jr., A. Damon, J. Van B. Dean, H. W. Doyle, S. Dvoskin, D. Estes, W. H. Franklin, A. Gibson, C. R. Hulse, P. K. Johnson, R. Jreisaty, D. M. Kanter, M. L. Marinovich, G. Mulheims, J. Nakano, R. Noble, T. Richter, D. H. Smith, A. I. Snyder, C. J. Tyson, Jr., C. A. Vicens, J. A. Wood

At Bellevue Hospital:

Samuel W. Lambert Professor: D. W. Richards

Professor: A. F. Cournand

Clinical Professor: M. Dinnerstein

Associate Professors: J. M. Jones, J. H. McClement

Associate Clinical Professors: C. R. Gross, I. Rappaport, H. McL. Riggins, K. J. Thomson

Assistant Professors: W. A. Briscoe, H. W. Fritts

Assistant Professors of Clinical Medicine: M. I. Ferrer, R. Harvey

Assistant Clinical Professor: W. H. Stearns

Associates: O. S. Baum, M. E. Campbell, H. H. Coppersmith, W. L. Evans, L. H. Hellstrom, H. M. Hicks, A. Hoff, J. Leland, F. D. Rossomondo, P. Wermer, C. H. Whitney

Associate in Biochemistry: A. M. Briscoe

Instructors: E. Alpert, R. F. Alsop, H. S. Collins, A. Davis, B. B. Eichler, W. W. Field, H. Fong, B. B. Garthwaite, B. J. Handler, F. S. Lansdown, J. V. Lichtenstein,

H. Perrone, H. G. Shaffeld, W. J. Sheils, D. G. Simpson, A. M. Tunick, L. Warshaw

Assistants: S. C. Alexander, L. L. Davis, L. Fishel, D. L. Hartman, S. N. Heller, A. Minzter, C. R. Ream, M. B. Smith, C. S. Yongue

Lecturers: M. Kushner, W. E. Loring

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston

Assistant Clinical Professors: N. S. Brown, G. Taylor

Associate: W. H. Button, Jr.

Assistant: A. C. Santy

At Goldwater Memorial Hospital:

Professor: D. Seegal

Professor of Biochemistry: F. E. Kendall

Associate Clinical Professor: A. J. Patek, Jr.

Assistant Professors: Q. B. Deming, A. R. Wertheim

Assistant Professors of Biochemistry: L. L. Abell, E. H. Mosbach

Assistant Clinical Professors: H. Bickerman, A. Steiner

Associates: H. Colcher, A. W. Feinberg, H. Lax, D. Rudman

Associate in Biochemistry: M. M. Daly

Assistants: B. M. Cohen, J. G. Edreira, E. German, A. Sakamoto, L. A. Scarrone, E. Schmatolla

At Mt. Sinai Hospital:

Professor: A. B. Gutman

Associate Clinical Professors: C. K. Friedberg, S. Silver

Assistant Clinical Professors: D. Adlersberg, W. M. Hitzig, M. Mendlowitz, C. B. Rabin, L. R. Wasserman

Associates: H. Horn, T. F. Yu

Lecturers: S. Dack, I. E. Gerber, H. L. Jaffe, F. H. King, F. D. Zeman

At Montefiore Hospital:

Clinical Professors: R. G. Bloch, L. Leiter

Associate Clinical Professor: S. P. Schwartz

Assistant Clinical Professors: S. Biloon, H. Gross, K. Harpuder, A. Jezer, S. Melamed, J. B. Schwedel, L. E. Siltzbach, I. D. Stein, B. Weingarten

Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. G. W. Escher, M. Friedenson, E. Goldberger, J. Harkavy, B. E. Jacobson, D. Laszlo, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, I. L. Rubin, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, R. E. Weston, D. Young

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III

Associate Clinical Professor: E. D. Thomas

Assistant Clinical Professor: F. F. Harrison

Associate in Biochemistry: T. Peters, Jr.

Instructors: K. Fremont-Smith, J. C. Mithoefer, W. H. Mook, E. D. Rames

At St. Luke's Hospital:

Associate Clinical Professor: G. J. Coffin

Assistant Clinical Professors: A. C. Herring, O. R. Jones, W. J. Pyles

Associates: C. G. Adsit, J. G. Hilton, J. H. Keating, Jr.

Instructors: A. L. L. Bell, R. Case, J. Feltman, R. P. Keating, F. J. Schilling

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Turner and associates.

This course consists of instruction in the technique of blood-counting, etc., and systematic instruction in the various chemical and microscopical methods.

Medicine 103T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Atchley.

Medicine 201–202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Atchley in charge.

Medicine 203–204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students with a member of the faculty orienting discussion.

Medicine 205–206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Cross and associates.

Medicine 207–208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209–210*. Two months. Fourth year. Professor Lamb in charge.

Medicine 209–210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems with a review of the pertinent pharmacology. See *Pharmacology 202*.

Medicine 216—Forensic medicine and medical jurisprudence. Sixteen lectures. Fourth year. Mr. Werne (*from Public Health*)

Medicine 221–222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Richards and associates.

Medicine 223–224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225–226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Richards and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227–228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

- A. *Diabetes*. M. W. F. Floor 2. Limited to six students each morning. Professor Sanger and Dr. Marks.
- B. *Thyroid*. F. Floor 10. Limited to six students. Professor Werner and Dr. Aranow.
- C. *Nephritis and hypertension*. Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

- D. *Allergy*. M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.

- E. *Cardiac*. F. Floor 10. Professor M. I. Ferrer.
 F. *Arthritis*. W. F. Floor 10. Limited to four students daily. Professor Ragan.
 G. *Combined endocrine*. Tu. Floor 3. Limited to six students. Professor Werner and associates.
 H. *Gastrointestinal*. M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229-230—Differential diagnosis. Fourth year. Professor Hanger.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231-232—Research in medicine. Under the direction of Professor Loeb.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235-236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

ELECTIVE COURSES IN MEDICINE

Medicine 237—Elective course in cardiorespiratory physiology. Fifteen lectures, all classes. Professors Cournand and Richards.

Medicine 239—Elective course in clinical biochemistry. Fall of even-numbered years. Fifteen lectures, all classes. Professor Taggart.

MICROBIOLOGY

John E. Borne Professor of Medical and Surgical Research: H. M. Rose (*executive officer*)

Professor: E. A. Kabat (*Neurology*)

Professor of Bacteriology: C. W. Jungeblut

Associate Professors: S. P. Halbert (*Ophthalmology*), D. H. Moore, B. C. Seegal

Assistant Professors: S. M. Beiser, B. F. Erlanger, C. Howe (*Medicine*), C. Morgan (*Medicine*), H. Seneca (*Urology*), S. W. Tanenbaum

Assistant Professor of Biochemistry: I. Mandl

Associates: S. A. Ellison, M. Holden, A. W. Knox, E. Y. Lasfargues, D. Locatcher-Khorazo (*Ophthalmology*), G. Schiffman (*Neurology*)

Research Associate: I. M. Mountain

Assistants: E. W. Bassett, K. C. Hsu

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.

This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Five hours lecture and demonstrations. Second year. 3 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. Five hours per week for twelve weeks. 3 pts. Hours to be arranged.

Microbiology 251FST—Research in problems of immunology and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (executive officer)

Professor of Clinical Neurological Surgery: J. E. Scarff

Associate Professor of Clinical Neurological Surgery: L. A. Mount

Associate Clinical Professor: F. Cramer

Assistant Professors: J. B. Campbell, D. P. Purpura

Assistant Professors of Clinical Neurological Surgery: J. Ransohoff, E. B. Schlesinger

Associate: T. J. Bridges

Research Associate: J. Husby

Instructor: J. W. Correll

Assistants: S. A. Jacobson, K. Shulman

NEUROLOGY

Professor: H. H. Merritt (executive officer)

Professor of Neuropathology: A. Wolf

Professor of Anatomy: F. A. Mettler

Professor of Biochemistry: D. Nachmansohn

Professor of Microbiology: E. A. Kabat

Associate Professors: H. Grundfest, P. F. A. Hoefer

Associate Professor of Clinical Neurology: S. Carter, D. Sciarra, C. T. Vicale, M. O. Yah

Associate Professor of Biochemistry: I. B. Wilson

Associate Professor of Neuropathology: D. Cowen

Assistant Professors: R. A. Fishman, E. S. Goldensohn, L. P. Rowland

Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, E. Herz, R. J.

Masselink, J. Moldaver, L. A. Salmon

Assistant Professor of Neuropathology: I. H. Feigin

Assistant Clinical Professors: R. M. Brickner, A. M. Frantz, C. C. Hare, G. H.

Hyslop, J. M. McKinney, M. Silberman, H. G. Weitzen

Associates: F. Ansanelli, K. Constable, S. M. Dillenberg, L. J. Doshay, A. Gallinek,

L. V. Lyons (Anatomy), R. Pictri, S. F. Thomas, F. T. Zimmerman

Associate in Biochemistry: H. C. Lawler

Associate in Microbiology: G. Schiffman

Associate in Neuropathology: S. M. Aronson

Research Associates: S. M. Crain, J. Epstein, L. Epstein, J. M. Girado, S. Ginsburg, H. Hartford, F. C. G. Hoskin, E. H. J. Schoffeniels, A. Weber

Instructors: S. M. Cohen, J. F. Culleton, S. Lesse, C. G. McKendree, G. F. Osler, J. Schneider, H. J. Tucker

Assistants: J. A. Gomez, F. P. Iorio, J. L. O'Brien, S. G. Penny, I. Rapin, H. G. Thompson, Jr.

Research Assistants: B. B. Burgemeister, L. Zablow

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.

Associate Clinical Professor: A. P. Friedman

Assistant Clinical Professors: S. Elpern, M. J. Madonick, F. D. Stern

Associate: S. Solomon

Instructors: E. L. Demuth, R. J. Greenberg, S. Maringer, R. B. Miller, J. H. Scharf, K. Strully, M. J. Tissenbaum

Assistant: K. D. Barron

At Mt. Sinai Hospital:

Clinical Professor: M. Bender

Lecturer: H. Strauss

At Rockland State Hospital:

Assistant: J. C. Saunders

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, anatomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for ten weeks. Second year. Professors Merritt and Vicalé.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicalé.

Neurology 207-208—Neurology: examination of the patient and interpretation of findings. Fifteen hours a week for two weeks. Third year. Members of staffs.

At Neurological Institute and Montefiore Hospital.

Neurology 209-210—Neurology: the diseases of the nervous system. Lectures and demonstrations two hours a week for seven weeks. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241-242—Ward clinical clerkships. Five mornings a week, 9-12; five afternoons a week, 2-5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*executive officer*)

Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo

Professor of Anatomy: E. T. Engle

Clinical Professors: E. E. Bunzel, V. C. Damon

Associate Professors: A. A. Plentl, G. J. Vosburgh

Associate Professor of Biochemistry: S. Lieberman

Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer

Associate Professor of Clinical Medicine: J. W. Jailer

Associate Clinical Professor: W. V. Cavanagh

Assistant Professor: A. L. Southam

Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, L. B. Shettles, H. Speert, A. J. B. Tillman

Assistant Clinical Professors: J. R. Montgomery, E. W. Munnell

Associates: A. N. Fenton, D. B. Moore, J. B. Rearden

Associate in Psychiatry: L. Gidro-Frank

Research Associates: S. Bader, S. Burstein, H. Guthwin, M. E. Long, L. L. Phillips

Research Associate in Biochemistry: S. Solomon

Instructors: E. A. Friedman, D. J. Grandin, M. T. Gray, R. E. Hall, M. D. Laird, H. M. M. Tovell, R. L. Vander Wiele

Assistants: G. G. Herman, T. J. Parks

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Margaret Hague Maternity Hospital:

Assistant Clinical Professors: J. N. Connell, R. A. Cosgrove, J. P. Donnelly, E. G. Waters

At Mt. Sinai Hospital:

Clinical Professor: A. F. Guttmacher

At Woman's Hospital:

Clinical Professor: C. J. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 201-202—Theory and practice of obstetrics and gynecology. Fifty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complications of diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203-204—Fourth year: practical work in obstetrics and gynecology.

The practical work in this obstetrics and gynecology class is divided into six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Professor: J. H. Dunnington (*executive officer*)

Professor of Anatomy: G. K. Smelser

Professor of Biochemistry: Z. Dische

Professor of Clinical Ophthalmology: G. M. Bruce

Clinical Professors: A. B. Reese, M. C. Wheeler

Associate Professor of Microbiology: S. P. Halbert

Associate Professors of Clinical Ophthalmology: J. P. Macnie, R. L. Pfeiffer (*Radiology*)

Associate Clinical Professors: W. S. Knighton, C. A. Perera

Assistant Clinical Professor: R. N. Berke

Assistant Professor of Anatomy: G. A. Pappas

Associates: H. D. H. Brown, F. D. Carroll, G. Clark, J. V. Flack, G. R. Merriam, F. Payne, E. F. Regan, J. A. C. Wadsworth

Associate in Microbiology: D. Locatcher-Khorazo

Research Associate: O. Lowenstein

Instructors: E. G. Bethke, R. M. Day, A. de Roeth, Jr., A. W. Forrest, I. S. Jones, P. Knapp, V. Ozanics, M. C. Rittler

Assistants: R. P. Burns, C. J. Campbell, R. C. Collins, A. Donn

Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201-202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203-204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*executive officer*)

Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin

Clinical Professor: L. A. Lantzounis

Associate Professor of Clinical Orthopedic Surgery: F. M. Smith

Assistant Professor: G. C. Godman

Assistant Professors of Clinical Orthopedic Surgery: S. R. Gaston, C. S. Neer, II, C. T. Ryder, M. B. Watkins

Assistant Clinical Professors: E. C. Bragg, R. E. Carroll, W. H. von Lackum
Instructors: G. B. Ambrose, C. A. L. Bassett, F. S. Craig, K. C. Francis, A. Garcia,
 D. K. McElroy, A. Papas

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201-202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield.

Orthopedic Surgery 203-204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks as part of *Surgery 204-205*. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205-206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207-208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery participates in the correlative clinics in the first year, with a discussion of fractures, and also presents a series of lectures in connection with *Surgery 102T* and *Anatomy 105FS* in the second year.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*executive officer*)

Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley, DeG. Woodman

Associate Professors of Clinical Otolaryngology: G. V. Browne, J. Waltner

Assistant Clinical Professors: H. S. Friedman, R. M. Hui, B. Marquit

Associate: E. B. Bilchick

Instructors: M. Basek, P. Lindenberg

Lecturer: J. Eisenson

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman

Associate Clinical Professors: I. B. Goldman, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201-202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, Waltner, and Woodman, Dr. Basek, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Fowler, Woodman, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225-226—Research in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226-227—Ward Clinical Clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Basek, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: H. P. Smith (*executive officer*)

Professor of Neuropathology: A. Wolf

Associate Professors: D. H. Andersen (*Pediatrics*), C. Z. Garber, H. D. Kesten, F. V. Lucas, D. M. Spain, E. E. Sproul, W. B. Stewart

Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)

Associate Professor of Oral Pathology: L. Cahn (*Dental and Oral Surgery*)

Assistant Professors: W. A. Blanc, D. E. Brown, G. P. Vennart

Assistant Professor of Biochemistry: H. S. Simms

Assistant Professors of Neuropathology: G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*)

Assistant Professors of Oral Pathology: H. A. Bartels (*Dental and Oral Surgery*), M. Lunin

Associate: B. N. Berg

Associate in Biochemistry: C. R. Harmison

Associates in Neuropathology: S. Donahue, L. M. Geller

Research Associates: S. Fiala, H. Kaunitz, L. Zucker

Instructors: R. E. Fiol-Rodrigues, J. B. Henry, R. L. Naeye, J. M. Trainor, C. W. True

Assistants: D. W. Crocker, J. F. Davenport, W. B. Hanley, W. H. Kerr, W. W. McLondon

Lecturer: T. F. Zucker

Lecturer in Medical Illustrating: A. Feinberg

At Bellevue Hospital:

Research Associate: J. B. Cromie

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn

Instructor: C. A. Ashley

At Montefiore Hospital:

Professor: H. M. Zimmerman

Associate Professor: T. H. Spaet

Instructor: J. I. Berkman

At Mt. Sinai Hospital:

Professor: H. Popper

Associate Professor: S. Otani

At Roosevelt Hospital:

Assistant Professor: B. Kalfayan

At St. Luke's Hospital:

Assistant Professor: C. F. Begg

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. Second year. 14 pts. Professors Lucas, Smith, Stewart, and Vennart, and staff.

This course consists of a study of important pathological conditions, demonstrated by museum specimens and a very complete series of histological preparations. The course includes attendance at autopsies and the study of gross material with discussion of clinical histories one afternoon a week.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

Pathology 103FS—Medicine-pathology case study. One hour a week, first and second trimesters. Second year. Members of the Departments of Medicine and Pathology.

This course consists of presentation of patients illustrating diseases studied in *Pathology 101FST* with a discussion of the etiology, lesions, and clinical findings.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251-252—Research in pathology. Credit to be arranged.

Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: R. McIntosh (*executive officer*)

Associate Professors: H. E. Alexander, C. M. Riley

Associate Professor of Pathology: D. H. Andersen

Associate Clinical Professor: C. L. Wood

Assistant Professors: P. A. di Sant' Agnese, M. M. Grumbach, R. C. Harris

Assistant Clinical Professors: H. S. Altman, S. Blumenthal, J. M. Brush, D. S. Damrosch, R. E. Moloshok, J. A. Wolff

Assistant Professor of Clinical Pediatrics: W. A. Silverman

Associates: W. A. Bauman, R. W. Culbert, G. W. Mellin, M. Singer, K. Sprunt

Research Associate: G. Leidy

Instructors: J. B. Ahouse, R. G. Ames, H. Anfanger, S. Blatman, L. A. Boker, S. P. Griffiths, W. R. Kessler, J. H. Maroney, R. M. Mickey, D. R. Reed, M. R. Richards, M. H. Samuels, P. R. Scaglione, W. R. Smith, P. S. Strong, F. H. von Hofe, D. A. Wilcox, L. F. V. Wilking, Jr., A. G. Wilson

Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., M. Brust, L. J. Cassard, W. M. Chemris, S. J. Cohen, J. A. Costa, C. R. Denning, R. U. Donovan, L. G. M. Fox, O. L. Frick, B. German, T. B. Givan, Jr., J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Honan, P. Hudson, M. H. Jacobs, L. S. James (*Anesthesiology*), R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, S. A. Mayer, D. J. Melia, K. M. Metcalf, W. L. Mitchell, M. H. Rachelson, R. C. Richards, A. P. Rosen, W. H. Smith, W. R. Stanke-wick, D. Stiles, R. H. Strang, E. Ufford, R. West, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: T. C. Goodwin

Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes

Associate Clinical Professor: S. Karelitz

Instructors: A. L. Florman, D. Gribetz, A. Y. Sweet

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201-202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203-204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Riley and staff.

At Babies Hospital.

Student and hospital resident work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207-208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*executive officer*)

Professor: S.-C. Wang

Associate Professor: W. H. Sawyer

Assistant Professors: H. J. Bartelstone, P. Brazeau, F. G. Hofmann

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101ST—General and special pharmacology. One hour lecture or conference, second trimester; four hours lecture or conference and six hours laboratory, third trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year, Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See *Medicine* 209-210.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229-230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Professor: R. C. Darling (*executive officer*)

Professor of Physical Medicine: W. B. Snow

Associate Clinical Professor: M. Hoberman

Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch

Assistant Clinical Professor: L. H. Wisham

Instructors: C. L. DeVictoria, G. D. Dorian, M. J. Lota, S. Weber, S-J. Yue

Assistant Professor and Director of Training for Physical Therapists: M. E. Callahan

Assistant Professor and Director of Training for Occupational Therapists: M. L. Francis

Instructor and Associate Director of Training for Physical Therapists: R. Dickinson

Instructor and Associate Director of Training for Occupational Therapists: M. E. Schnebly

Associate in Physical Therapy: K. T. San Julian

Instructors in Physical Therapy: M. S. Cover, B. Talmud

Instructors in Occupational Therapy: M. Abbott, D. H. Ericson, I. P. Robinault, A. R.

Trei, T. L. Wellerson

Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

Assistant in Occupational Therapy: P. A. Schmidt

At Mt. Sinai Hospital:

Assistant Clinical Professor: W. Bierman

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. I. Gregersen (*executive officer*)

Professor: W. S. Root

Associate Professors: L. T. Cizek, W. L. Nastuk, W. W. Walcott

Assistant Professor: W. R. Loewenstein

Assistant Clinical Professor: H. A. Abramson

Research Associate: C. Pallavicini

Instructors: H. Chien, R. J. Dellenback, M. Nocenti, R. A. Rawson

At Mt. Sinai Hospital:

Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

Physiology 103Fo—Correlative clinic. First year.

See *Anatomy 114FFo*.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.

Tu. Th. 3–5. Laboratory by arrangement.

History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measuring cardiac output, blood volume, etc.

Physiology 251–252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

PSYCHIATRY

Professors: F. J. Kallman, L. C. Kolb (*executive officer*), W. S. Langford, I. H. MacKinnon

Professor of Clinical Psychiatry: P. H. Hoch

Professors of Biochemistry: W. M. Sperry, H. Waelsch

Professor of Medical Psychology: J. Zubin (*Biometrics*)

Professor of Psychology: C. Landis

Clinical Professors: G. E. Daniels (*Medicine*), R. B. McGraw

Associate Professors of Clinical Psychiatry: W. A. Horwitz, P. Polatin

Associate Professor of Neuropathology: L. Roizin

Associate Clinical Professors: N. Ackerman, V. Bernard, H. Bruch, G. Goldman, A. Karush, K. Kelley, H. R. Klein, L. Ovesey

Assistant Professor: B. C. Holland

Assistant Professor of Medical Psychology: A. C. Carr

Assistant Professor of Microbiology: N. Kopeloff

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: B. H. Balser, V. Bernard, B. Buchenholz, J. Cattell,

D. Dunton, B. Easser, W. Goldfarb, G. A. Jervis, L. Moses, R. Moulton, B. L. Pacella, R. Senescu, J. Weber

Associates: G. Baker, A. L. Brush, W. A. Brooks, M. Cohen, R. D. Craig, L. Gidro-Frank, R. Gilder, Jr., M. Glusman, W. Goldfarb, H. L. Hall, C. Hogan, S. Karlen, L. M. Kopeloff, J. P. Lambert, J. Lubart, R. MacKinnon, S. Malitz, J. A. M. Meerloo, B. A. Pasquarelli, S. C. Post, A. A. Rosner, E. Savitsky, A. Schick, W. A. Schonfeld, E. S. Schreiber, D. Shapiro, R. Sobel, E. S. Tauber, R. Taylor, M. P. Torre (*Public Health*), R. J. Weiss, E. Welsch

Research Associates: G. B. Baroff, A. Falek, M. Gold, L. B. Kalinowsky, L. M. Kopeloff, J. D. Rainer, J. Rutschmann, J. Schachter

Research Associates in Biochemistry: M. Berger, H. Sachs

Instructors: A. B. Adam, J. P. Briggs, R. J. Campbell, R. J. Carotenuto, J. Cederquist, H. Chartock, L. Cobliner, L. Coleman, J. A. Cook, A. Cooper, Z. DeFries, H. D. DeWitt, D. B. Douglas, S. Dunaif, M. Farnham, S. L. Feder, J. A. Frank, O. Frankel, S. Furst, W. Gaylin, A. I. Goldfarb, I. Harrison, R. Hartogs, W. Hochstetter, M. J. D. Jameson, J. Kennedy, H. McHugh, R. J. Mearin, A. Messer, C. Moffett, M. Naftalin, J. O'Connor, J. F. Oliven, H. Potter, E. L. Priest, P. E. Ryberg, L. Scheinman, J. Sheps, D. E. Sobel, C. W. Socarides, W. Stewart, S. Stirt, M. O. Strahl, W. R. Watson, V. N. Wilking

Assistants: A. M. Bottino, W. A. Brooks, R. W. W. Evans, H. G. Furth, E. J. Hornick, M. M. Lawrence, I. M. Marcus, B. Roth, D. Sank, J. Weinless, M. H. Wodin

Lecturers: H. G. Birch, H. Brill, H. Davidson, K. Goldstein, A. Kardiner, L. S. Kubie, D. Levy, L. G. Lowrey, J. A. P. Millet, S. Rado

At Creedmoor State Hospital:

Assistant Clinical Professor: J. R. Whittier

At Manhattan State Hospital:

Assistant Clinical Professor: N. E. Stein

Instructor: H. C. B. Denber

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman

Lecturers: C. Fisher, P. Goolker

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline

Research Associates: A. Ax, L. P. Carini

Research Assistants: Y. Taketomo, P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton

At the Institute for the Crippled and Disabled:

Instructors: L. A. Gelb, A. B. Szalita-Pemow

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Twenty-two one-hour lectures and demonstrations concerned with the genetic, family, and cultural processes under-

lying healthy behavior, with the nature of anxiety, with the psychological methods of adaptation to anxiety, and with processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year. Professors Kolb, Bruch, and Dunton; Dr. Brooks.

Psychiatry 102S—Psychopathology. Eleven one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professor MacKinnon, Drs. Hogan and Weiss, and members of the faculty.

Psychiatry 203-204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Daniels, Horwitz, Langford, McGraw, MacKinnon, Polatin, Senescu, and Stein, and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures, and demonstrations. One and one half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Professor Holland and clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219-220—Psychometric methods. Forenoons, twice a week. Psychiatric Institute. Professor Carr.

Practical exercises in mental measurements. Limited to two students.

Psychiatry 221-222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

Public Health Practice:

Joseph R. DeLamar Professor: W. C. Spring, Jr.

Associate Professor: M. W. Barnard

Adjunct Associate Professors: W. R. Brumfield, H. E. Hilleboe, M. S. Ingalls, G. James

Assistant Professor: A. J. Beckmann

Adjunct Assistant Professors: M. Antell, R. E. Rothermel

Associate in Psychiatry: M. P. Torre

Administrative Medicine:

Joseph R. DeLamar Professor: R. E. Trussell (*executive officer*)

Professor: E. D. Barnett

Associate Professors: C. C. Clay, J. Elinson

Adjunct Associate Professors: O. W. Anderson, M. Cherkasky

Adjunct Associate Professor of Hospital Administration: B. C. MacLean

Assistant Professor: H. Baumgarten, Jr.

Adjunct Assistant Professors: E. M. Bluestone, G. A. Silver

Research Associates: J. E. Bryan, R. B. Heiser, R. J. Pendall, J. J. Williams, F. W. van Dyke

Instructor: M. P. Shorney

Assistants: M. B. Beck, V. M. Brown, J. K. Lane, R. J. Ratajack, M. J. Robertson

Assistant in Hospital Administration: G. F. Billington

Administrative Assistant: L. Gerold

Public Health Education:

Professor: G. Rosen

Adjunct Assistant Professor: I. S. Shapiro

Biostatistics:

Professor: J. W. Fertig

Assistant Professors: A. P. Berger, G. L. Saiger

Research Associate: N. W. Chilton

Epidemiology:

Professor: E. G. Clark

Adjunct Associate Professors: S. Frant, M. Greenberg

Assistant Professor: M. D. Schweitzer

Instructor: A. C. Gelman

Assistants: D. E. Krueger, A. B. Ritterband

Occupational Medicine:

Professor: L. J. Goldwater

Adjunct Associate Professor: I. R. Tabershaw

Adjunct Associate Professor of Nutrition: N. Jolliffe

Assistant Professor: B. Mintz

Adjunct Assistant Professor: M. Kleinfeld

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown

Associate Professor of Medical Entomology: R. W. Williams

Adjunct Assistant Professor: H. B. Shookhoff

Assistant Professor of Parasitology: K. L. Hussey

Research Associate in Parasitology: K. F. Chan

Instructors: K. G. Dwork, M. M. Sterman

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, H. J. Becker, A. J. Binkert, G. Bugbee, H. R. Cohen, P. M. Densen, W. R. Donovan, C. L. Erhardt, R. T. Fisher, R. S. Goodhart, A. E. Grosso, E. M. Gruenberg, E. Hayt, R. N. Kerst, J. H. Kinnaman, G. W. Larimore, S. S. Lifson, J. Masur, E. A. Mosso, B. B. Palmer, M. J. Plishner, M. Radom, P. J. Rafle, J. W. G. Rehn, C. G. Roswell, A. J. J. Rourke, L. Schneider, R. F. Sikes, J. E. Silson, R. P. Sloan, J. E. Snyder, J. G. Steinle, D. K. Tuller, S. B. Weinberg, B. Werne, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 201—Statistical analysis of medical and public health data. One hour a week for ten weeks. First year. Professor Fertig.

Public Health 101S—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203-204—Preventive and administrative medicine. Six hours a week; lectures, seminars, public health clinics, and field work in public health and medical care for eleven weeks. Third year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology, occupational medicine, parasitology, etc. Fourth-year students interested in pursuing further studies in preventive medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

RADIOLOGY

Professors: J. Caffey, G. Failla (*Physics*), H. W. Jacox, E. H. Quimby (*Physics*), W. B. Seaman (*executive officer*)

Associate Professors: R. J. Guttmann, M. M. Kligerman, H. H. Rossi (*Physics*), R. Rugh (*Biology*), J. M. Taveras, J. S. Wells

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer

Assistant Professors: A. L. Bachman, D. J. Barnett, G. S. Schwarz

Associates: C. B. Braestrup, L. Rottenberg

Instructors: M. Alpert, M. H. Becker, R. G. Bogen, F. M. Cummins, K. Ellis, R. J. Hochstim, J. L. Jarvis, D. W. Johnson, R. V. Louie, S. H. Madell, S. H. Marsh, J. M. Moynahan, J. Nadelhaft, R. Schlaeger, N. DuV. Tapley, R. S. Yalow

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Hospital for Joint Diseases:

Associate: M. M. Pomeranz

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf

Instructor: S. M. Silverstone

At Montefiore Hospital:

Associate Clinical Professor: S. Fineman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201-202—Diagnostic radiology. One hour a week for twenty-two weeks. Third year. Professors Kligerman and Barnett, and Drs. Alpert, Becker, Cummins, Ellis, Hochstim, Jarvis, Johnson, Moynahan, Nadelhaft, and Schlaeger.

In this course typical films are demonstrated during medical and surgical clerkships (*Medicine 201-202 and Surgery 204-205*).

Radiology 203-204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Caffey, Seaman, Taveras, and Wells, and Dr. Madell.

Radiology 205—Radiotherapy. Three hours. Third and fourth years. Professors Jacox and Kligerman. Two lectures given during the combined clinic series (*Medicine 205-206*).

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox and Kligerman.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Kligerman, Seaman, and Taveras, and Drs. Ellis and Madell.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Kligerman, Quimby, Rossi, Rugh, and Seaman, and Mr. Braestrup and Mr. Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*executive officer*)

Professors: V. K. Frantz, R. Lattes

Professors of Clinical Surgery: C. D. Haagensen, L. W. Sloan, T. W. Stevenson, Jr.

Clinical Professor: R. H. Wylic

Associate Professor of Anatomy: M. R. Murray

Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, R. A.

Deterling, R. H. E. Elliott, Jr., D. V. Habib, H. D. Harvey, E. L. Howes, M. R. Porter, T. V. Santulli, R. N. Schullinger

Associate Clinical Professor: H. S. F. Cooper

Assistant Professor: N. Lane

Assistant Professor of Biochemistry: L. S. Dietrich

Assistant Professors of Clinical Surgery: R. S. Grinnell, R. B. Hiatt, D. M. Ju, F. R.

McAllister, R. L. Moore, G. Sanger, J. Scudder, E. B. Self

Assistant Clinical Professors: J. Ferrer, E. N. Goodman, A. Himmelstein

Research Associates: A. D. Deitch, B. Johnson, G. Katz, M. S. Parshley, E. Peterson

Instructors: H. Auchincloss, Jr., S. B. Bhonslay, Jr., G. F. Crikelair, C. R. Feind,

C. W. Findlay, F. P. Herter, H. F. Luddecke, W. B. Ober, L. Ozzello, J. Prudden,

A. B. Voorhees, P. D. Wiedel

Research Assistants: H. H. Benitez, C. Morris, M. S. Schwartz

Assistants: J. R. Malm, K. Reemstma, A. Starr, N. B. Thomson

At Bellevue Hospital:

Clinical Professor: K. M. Lewis

Associate Clinical Professor: H. C. Maier

Assistant Clinical Professors: M. Chamberlain, C. Lester, R. S. Mueller, D. M. Weeks

Associates: J. F. Bagg, W. W. Heroy, H. A. Kingsbury, A. Lambert, T. S. Winslow

Instructors: R. H. Clauss, J. Ford, P. Kirschner, K. M. Lewis, Jr., H. C. Reusch,

R. K. Snyderman, E. G. Stanley-Brown, W. A. Wichern, J. M. Wilson, Jr.

Assistant: M. Moley

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers

Assistant Clinical Professors: A. Jaretzki III, J. Mithoefer

At Mt. Sinai Hospital:

Clinical Professor I. D. Baronofsky

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson

Associate Clinical Professors: F. H. Amendola, J. E. Thompson

Instructor: J. B. Rodgers

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel

Associate Clinical Professors: A. E. W. Ada, P. C. Morton

Assistant Clinical Professors: H. F. Fitzpatrick, R. B. Stark

Instructors: R. W. Frazer, W. G. Knox

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. (Includes *Orthopedic Surgery* 205–206). Six hours a week for ten weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 201–202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204–205—Surgical outpatient department and anesthesia. (Includes *Surgery* 211–212, *Radiology* 201–202, and *Orthopedic Surgery* 203–204). Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209–210—Outpatient clinical clerkships. Two months, combined with *Medicine* 207–208. Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211–212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery* 204–205, five and a half weeks. Third year. Professor Frantz.

Surgery 213–214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217–218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine* 221–222.

Surgery 219–220—Diagnosis of cancer. Twelve lectures. Fourth year. Professor Haagen-sen.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221–222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Deterling and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (executive officer)

Professor of Clinical Urology: G. W. Fish

Associate Clinical Professors: C. T. Hazzard, P. B. Hudson, M. M. Melicow, J. N. Robinson

Assistant Professor of Biochemistry: T. Price

Assistant Professor of Microbiology: H. Seneca

Assistant Professor of Clinical Urology: H. H. Zinsser

Associates: R. F. Seidel, T. J. Sullivan, R. C. Yeaw

Research Associate in Biochemistry: M. E. Lombardo

Instructors: S. Pulrang, R. J. Veenema, A. T. Willetts

Assistants: S. B. Braham, J. E. Bowers, P. F. Crutchlow, A. L. Dean, J. T. Donovan, C. A. Furey, Jr., M. B. Pincus, M. J. Pirossi, T. A. Viscelli

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201-202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professors Lattimer and Fish, and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, Roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*

G. Failla, *Professor of Radiology (Physics)*

Edith H. Quimby, *Professor of Radiology (Physics)*

G. E. Kimball, *Professor of Chemistry*

D. Rittenberg, *Professor of Biochemistry*

W. S. Root, *Professor of Physiology*

T. Hayashi, *Associate Professor of Zoology*

The following course is required for the degree of Doctor of Philosophy:

Biophysics 202—Special problems and techniques in biophysics. Four hours spring session. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in 1956 and in alternate years thereafter.*

W. F. 4-6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, X-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *Physics 115-116, Mathematics 104, Chemistry 91-92, and Zoology 141, or their equivalents.*

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

GROSS ANATOMY. Required: *Textbook of Anatomy*, Cunningham, \$15; *Atlas of Descriptive Human Anatomy*, Vol. III, Sobotta, \$17.50; Dorland's or Stedman's *Medical Dictionary*, \$11.50.

MICROSCOPIC ANATOMY. Required: *Bailey's Textbook of Histology* (13th ed.), Smith and Copenhaver, \$9. Recommended but not required: *Textbook of Histology* (6th ed.), Maximow and Bloom, \$10.

NEUROANATOMY. Required: *Human Neuroanatomy*, (3d ed.), Strong and Elwyn, \$7.50; *Laboratory Manual for Neuroanatomy*, Elwyn, \$.75. Recommended but not required: *Functional Neuroanatomy*, Krieg, \$9; *Neuroanatomy* (2d ed.), Mettler, \$10.50; *The Anatomy of the Nervous System* (9th ed.), Ranson and Clark, \$8.50.

EMBRYOLOGY. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, \$10; *Human Embryology* (2d ed.), Patten, \$12.

BIOCHEMISTRY. Required: *Principles of Biochemistry*, White, Handler, Smith, Stetten, \$15; *Laboratory Manual* (1956), Staff, \$2.50.

DERMATOLOGY. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, \$13.50; *Practical Dermatology*, Lewis, \$7.50; *Syphilis, Its Course and Management*, Thomas, \$5.50.

MEDICINE. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed.), Martini, \$3.75; *Clinical Hematology*, Wintrobe, Lea, and Febiger (3d ed.), \$15; *Biochemistry of Disease* (2d ed.), Bodansky, Macmillan, \$12; *Textbook of Medicine* (8th ed.), Cecil and Loeb, \$15; *Principles of Internal Medicine*, Harrison, \$16; *Classical Descriptions of Disease*, Major, \$8.50. Reference textbooks: *Loose-Leaf Medicine*, Oxford, \$150.

MICROBIOLOGY. Required: *Laboratory Manual in Microbiology and Immunology*, \$3; *Bacterial and Mycotic Infections of Man* (2d ed.), edited by Dubos, \$7.50; *Viral and Rickettsial Infections of Man* (2d ed.), edited by Rivers, \$7.50.

NEUROLOGY. Required: *The Clinical Examination of the Nervous System*, Monrad-Krohn, \$7.50, or *The Neurologic Examination*, DeJong, \$18; and one of the following: *Textbook of Neurology*, Merritt, \$12.50; *Neurology*, Grinker, \$12.50; *A Textbook of Clinical Neurology*, Wechsler, \$9.50; *Diseases of the Nervous System*, Brain, \$8.50. Recommended but not required: *Basis of Clinical Neurology*, Brock, \$7; *Fundamentals of Clinical Neurology*, Merritt, Mettler and Putnam, \$6; *Neuroanatomy*, Mettler, \$10.50; *Diseases of the Nervous System in Infancy, Childhood and Adolescence*, Ford, \$18.50.

OBSTETRICS AND GYNECOLOGY. Required for gynecology (one of the following): *Textbook of Gynecology* (6th ed.), Curtis and Huffman, \$11; *Textbook of Gynecology*

(5th ed.), Novak, \$9. Required for obstetrics (one of the following): *Williams' Obstetrics* (11th ed.), Eastman, \$12.50; *Principles and Practice of Obstetrics* (11th ed.), Greenhill-De Lee, \$12.50; *Obstetrical Practice* (5th ed.), Beck, \$10.

OPHTHALMOLOGY. Recommended: *May's Diseases of the Eye* (21st ed. rev. by C. A. Perera), \$6; *Gifford's Textbook of Ophthalmology* (5th ed.), F. H. Adler, \$7.50.

OTOLARYNGOLOGY. Required (one of the following): *Specialities in General Practice* (chapters on ear, nose and throat), Cecil, \$15; *Basic Otolaryngology*, F. Lederer and A. R. Hollender, \$6.75.

PATHOLOGY. Required for 101FST (one of the following): *Textbook of Pathology*, Moore, \$13; *Textbook of Pathology*, Boyd, \$12.50; *Human Pathology*, Karsner, \$15; *Pathology*, Anderson, \$16.

PEDIATRICS. Required (one of the following): *Holt Pediatrics*, Holt and McIntosh, \$15; *Textbook of Pediatrics*, W. E. Nelson, \$15. Recommended but not required: *Growth and Development of Children*, Watson and Lowrey (2d ed.), \$7; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, \$28; *Common Contagious Diseases*, Stimson and Hodes, \$8.50.

PHARMACOLOGY. Required: *The Pharmacological Basis of Therapeutics*, Goodman and Gilman (2d ed.), \$17.50.

PHYSIOLOGY. Required: *Philip Bard's Medical Physiology*, \$14.

PSYCHIATRY. Required: *Textbook of Psychiatry* (4th ed.), Noyes, \$7. Recommended but not required: *Introduction to Psychiatry*, English and Finch, 1954; *Fundamentals of Psychiatry*, Strecker, \$4.

PUBLIC HEALTH. Recommended: *Textbook of Clinical Parasitology* (1952), Belding, \$12.50; *Preventive Medicine and Public Health* (2d ed., 1956), W. G. Smillie, \$7.50; *Textbook of Preventive Medicine*, H. R. Leavell and E. G. Clark, \$8; *Rosenau, Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, \$15.

RADIOLOGY. Recommended but not required: *Outline of Roentgen Diagnosis*, Rigler, \$6.50; *Radiology for Medical Students*, Hodges, Lampe, and Holt, \$6.75.

SURGERY. Required: *Introduction to Surgery*, Frantz and Harvey, \$2.50; *A Manual of Fractures and Dislocations*, Stimson, \$3.25. Recommended but not required: *Textbook of Surgery* (4th ed.), Christopher, \$12; *General Surgery* (5th ed.), Cole and Elman, \$11; *Inhalation Anesthesia*, Guedel, \$4; *Surgery*, Homans, \$8; *The Management of Fractures*, Key and Conwell, \$15; *Fractures* (2 vols.), Watson-Jones, \$20.

UROLOGY. Recommended but not required: *Clinical Urology*, McCrea (1948), \$6.50; *Synopsis of Genitourinary Diseases* (4th ed., 1950), Dodson, \$4.

A microscope of standard make fitted with the following attachments will fill the student's requirements:

1. Triple nosepiece
2. Abbe or variable focus condenser
3. 10x and 6x oculars
4. 16mm. and 4mm. objectives
5. Oil immersion lens

The cost of a suitable reconditioned microscope varies from \$100 to \$230 depending on the age, make, and model. The standard prices of new microscopes range from \$356 to \$602. Each student should also provide himself with a substage lamp. Microscopes may be rented at \$6 a month or \$52 for a school year. A limited supply of binoculars are available also for rental at \$12 a month, or \$100 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

OFFICERS OF INSTRUCTION

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS INCLUDING THOSE IN THE GRADUATE PROGRAM

- ELL, LIESE L. *Assistant Professor of Biochemistry*; Ph.D., Frankfurt, 1935
- RAMSON, HAROLD A., *Assistant Clinical Professor of Physiology*; A.B., Columbia, 1920; M.D., 1923
- KERMAN, NATHAN, *Associate Clinical Professor of Psychiatry*; A.B., Columbia, 1929; M.D., 1933
- A, ALEXANDER E. W., *Associate Clinical Professor of Surgery*; B.A., Queen's (Ontario), 1923; I.D., 1926
- LEBSBERG, DAVID, *Assistant Clinical Professor of Medicine*; M.D., Vienna, 1921
- ATE, FREDERICK J., *Associate Professor of Anatomy*; A.B., Columbia, 1932; Ph.D., 1949
- EXANDER, HATTIE E., *Associate Professor of Pediatrics*; A.B., Goucher, 1923; M.D., Johns Hopkins, 1930
- LANACH, MARY E., *Assistant Professor of Nursing*; B.S., Columbia, 1932; A.M., 1937
- TMAN, HARRY S., *Assistant Clinical Professor of Pediatrics*; M.D., New York University, 1921
- TMANN, FRANZ, *Clinical Professor of Otolaryngology*; M.D., Vienna, 1925
- ENDOLA, FREDERICK H., *Associate Clinical Professor of Surgery*; B.S., College of the City of New York, 1923; M.D., Cornell, 1927
- OLS, WILLIAM, *Assistant Professor of Clinical Neurology*; A.B., New York University, 1938; I.D., 1942
- DERSEN, DOROTHY H., *Associate Professor of Pathology*; A.B., Mt. Holyoke, 1922; M.D., Johns Hopkins, 1926; Med.Sc.D., Columbia, 1935
- DERSON, ODIN W., *Adjunct Associate Professor of Administrative Medicine*; A.B., Wisconsin, 1937; A.M., 1938; A.B., Michigan, 1940; Ph.D., 1948
- TELL, MICHAEL, *Adjunct Assistant Professor of Public Health Practice*; M.D., Long Island College, 1926; M.P.H., Harvard, 1939
- TENUCCI, ARTHUR J., *Associate Clinical Professor of Medicine*; B.S., College of the City of New York, 1926; M.D., Columbia, 1930
- GAR, VIRGINIA, *Professor of Anesthesiology*; A.B., Mt. Holyoke, 1929; M.D., Columbia, 1933
- PLEBAUM, EDMUND, *Associate Professor of Mental Anatomy*; D.D.S., New York College of Dentistry, 1922
- DEN, HOWARD A., *Associate Professor of Dentistry*; B.S., Fordham, 1943; D.D.S., Columbia, 1946
- CHLEY, DANA W., *Professor of Clinical Medicine*; B.S., Chicago, 1911; M.D., Johns Hopkins, 1915
- ERS, HERBERT D., JR., *Associate Clinical Professor of Dentistry*; A.B., Columbia, 1929; D.D.S., 1931
- CHMAN, ARNOLD L., *Assistant Professor of Radiology*; B.S., New York University, 1931; I.D., 1934
- LEY, FREDERICK R., *Clinical Professor of Medicine*; A.B., Princeton, 1924; M.D., Johns Hopkins, 1928
- KER, DANIEL C., JR., *Clinical Professor of Otolaryngology*; A.B., Pennsylvania, 1929; M.D., Jefferson, 1933; Med.Sc.D., Columbia, 1939
- BALSER, BENJAMIN A., *Assistant Clinical Professor of Psychiatry*; A.B., Rochester, 1926; A.M., Harvard, 1927; M.D., Buffalo, 1931; Med.Sc.D., Columbia, 1937
- BARACH, ALVAN L., *Clinical Professor of Medicine*; M.D., Columbia, 1919
- BARKER, HAROLD G., *Associate Professor of Clinical Surgery*; A.B., Utah, 1939; M.D., Pennsylvania, 1943
- BARKER, LESLIE P., *Associate Clinical Professor of Dermatology*; M.D., Columbia, 1927
- BARNARD, MARGARET W., *Associate Professor of Public Health Practice*; A.B., Smith, 1917; M.D., Cornell, 1923; D.P.H., Johns Hopkins, 1935
- BARNETT, DONALD J., *Assistant Professor of Radiology*; Asso.Sc., Texas A.&M., 1935; M.D., Baylor, 1939
- BARNETT, E. DWIGHT, *Professor of Administrative Medicine*; A.B., Stanford, 1921; M.D., 1928
- BARONOFSKY, IVAN D., *Clinical Professor of Surgery*; B.S., California, 1938; Ph.D., Minnesota, 1947; M.D., Marquette, 1943
- BARTELS, HENRY A., *Assistant Professor of Oral Pathology*; B.S., Rhode Island State, 1917; B.S., Columbia, 1925; D.D.S., 1927
- BARTELSTONE, HERBERT J., *Assistant Professor of Pharmacology*; B.S., College of the City of New York, 1942; D.D.S., Columbia, 1945
- BAUMGARTEN, HAROLD, JR., *Assistant Professor of Administrative Medicine*; A.B., Willamette, 1945
- BECKMANN, ALBERT J., *Assistant Professor of Public Health Practice*; A.B., Cornell, 1938; M.S., North Carolina, 1941; M.D., Wake Forest, 1945
- BEGG, CHARLES F., *Assistant Professor of Pathology*; A.B., Boston, 1935; M.D., Harvard, 1939
- BEHRE, JEANETTE A., *Assistant Professor of Biochemistry*; A.B., Vassar, 1913; Ph.D., Cornell, 1920
- BEISER, SAM M., *Assistant Professor of Microbiology*; Ph.D., Columbia, 1951
- BENDER, MORRIS B., *Clinical Professor of Neurology*; M.D., Pennsylvania, 1931
- BENFIELD, JAMES W., *Assistant Clinical Professor of Dentistry*; D.D.S., Columbia, 1945
- BERGER, AGNES P., *Assistant Professor of Biostatistics*; A.M., Columbia, 1944; Ph.D., Budapest, 1939
- BERKE, RAYNOLD N., *Assistant Clinical Professor of Ophthalmology*; A.B., Minnesota, 1926; M.B., 1928; M.D., 1929
- BERNARD, VIOLA W., *Associate Clinical Professor of Psychiatry*; B.S., New York University, 1933; M.D., Cornell, 1936
- BEUBE, FRANK E., *Clinical Professor of Dentistry*; I.D.S., D.D.S., Toronto, 1930
- BICKERMAN, HYLAN, *Assistant Clinical Professor of Medicine*; A.B., Columbia, 1934; M.D., New York University, 1939
- BIERMAN, WILLIAM, *Assistant Clinical Professor of Physical Medicine and Rehabilitation*; A.B., Columbia, 1915; M.D., 1917

- BILOON, SOL, *Assistant Clinical Professor of Medicine*; B.S., College of the City of New York, 1915; M.D., Cornell, 1919
- BLAKEMORE, ARTHUR H., *Associate Professor of Clinical Surgery*; B.S., William and Mary, 1918; M.D., Johns Hopkins, 1922
- BLANC, WILLIAM A., *Assistant Professor of Pathology*; B.A., College of Geneva, 1940; M.D., University of Geneva, 1947; Ph.D., 1952
- BLOCH, ROBERT G., *Clinical Professor of Medicine*; M.D., Munich, 1921
- BLUESTONE, EPHRAIM M., *Adjunct Assistant Professor of Administrative Medicine*; B.S., Columbia, 1913; M.D., 1916
- BLUMENTHAL, SIDNEY, *Assistant Clinical Professor of Pediatrics*; B.S., Iowa, 1933; M.D., 1933
- BORDLEY, JAMES, III, *Clinical Professor of Medicine*; Ph.B., Yale, 1923; M.D., Johns Hopkins, 1927
- BRADLEY, STANLEY E., *Associate Professor of Medicine*; A.B., Johns Hopkins, 1934; M.D., Maryland, 1938
- BRAGG, EVERETT C., *Assistant Clinical Professor of Orthopedic Surgery*; A.B., Cornell, 1936; M.D., 1940
- BRAZEAU, PAUL, *Assistant Professor of Pharmacology*; A.B., Columbia, 1949; Ph.D., 1952
- BRICKNER, RICHARD M., *Assistant Clinical Professor of Neurology*; B.S., Columbia, 1917; M.D., 1923
- BRISCOE, WILLIAM A., *Assistant Professor of Medicine*; B.A., Oxford, 1939; M.A., 1941; B.M., B.Ch., 1942; D.M., 1951
- BROWN, DONALD E., *Assistant Professor of Pathology*; M.D., Harvard, 1943
- BROWN, HAROLD W., *Professor of Parasitology*; A.B., Kalamazoo, 1924; M.S., Kansas State, 1925; Sc.D., Johns Hopkins, 1928; M.D., Vanderbilt, 1933; D.P.H., Harvard, 1936
- BROWN, NORTON S., *Assistant Clinical Professor of Medicine*; A.B., Stanford, 1925; M.D., 1928
- BROWNE, GEORGE V., *Associate Professor of Clinical Otolaryngology*; M.D., Boston, 1924
- BRUCE, GORDON M., *Professor of Clinical Ophthalmology*; B.A., M.D., and C.M., Dalhousie, 1925; D.Ophth., Oxford, 1928; Med.Sc.D., Columbia, 1934
- BRUCH, HILDE, *Associate Clinical Professor of Psychiatry*; B.A., Muenchen-Gladbach, 1923; M.D., Freiburg, 1929
- BRUENN, HOWARD G., *Assistant Clinical Professor of Medicine*; A.B., Columbia, 1925; M.S., 1933; Med.Sc.D., 1934; M.D., Johns Hopkins, 1929
- BRUMFIELD, WILLIAM R., *Adjunct Associate Professor of Public Health Practice*; B.S., Virginia Polytechnic, 1926; M.D., Virginia, 1930; M.P.H., Johns Hopkins, 1935
- BRUSH, JOHN M., *Assistant Clinical Professor of Pediatrics*; B.S., Princeton, 1921; M.D., Columbia, 1925
- BRZUSTOWICZ, STANISLAW H., *Assistant Clinical Professor of Dentistry*; B.S., St. Johns, 1940; D.D.S., Columbia, 1943
- BUCHENHOLZ, BRUCE, *Assistant Clinical Professor of Psychiatry*; B.S., New York University, 1936; M.D., Long Island, 1941
- BUDOWSKY, JACK, *Associate Clinical Professor of Dentistry*; D.D.S., Columbia, 1943
- BUNDRANT, THEODORE M., *Associate Clinical Professor of Dentistry*; D.D.S., Howard, 1929
- BUNZEL, ERNEST E., *Clinical Professor of Obstetrics and Gynecology*; Litt.B., Princeton, 1914; M.D., Columbia, 1918
- BYSSHE, STANLEY M., *Associate Professor of Clinical Obstetrics and Gynecology*; A.B., Harvard, 1927; M.D., 1931
- CAFFEY, JOHN, *Professor of Radiology*; A.B., Michigan, 1916; M.D., 1919
- CAHN, LESTER R., *Associate Professor of Oral Pathology*; D.D.S., New York College of Dentistry, 1918
- CAIN, EDWARD A., JR., *Associate Professor of Dentistry*; B.S., Fordham, 1942; D.D.S., Columbia, 1945
- CALLAHAN, MARY E., *Assistant Professor of Physical Therapy*; R.N., Clinton Hospital, 1937; R.P.T., Posse College, 1940
- CAMPBELL, JAMES B., *Assistant Professor of Neurological Surgery*; A.B., Harvard, 1931; M.D., 1933
- CARDEN, GEORGE A., JR., *Assistant Clinical Professor of Medicine*; Ph.B., Yale, 1931; M.D., 1933
- CARPENTER, MALCOLM B., *Associate Professor of Anatomy*; A.B., Columbia, 1943; M.D., London Island, 1947
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- THOMAS, E. DONNALL, *Associate Clinical Professor of Medicine*; A.B., Texas, 1941; A.M., 1942; M.D., Harvard, 1946
- THOMPSON, JAMES E., *Associate Clinical Professor of Surgery*; A.B., Texas, 1924; M.D., 1927
- THOMSON, K. JEFFERSON, *Associate Clinical Professor of Medicine*; M.D., Harvard, 1931
- TILLMAN, ALVIN J. B., *Assistant Professor of*

- linical Obstetrics and Gynecology; A.B., Columbia, 1924; M.D., 1927
- USSELL, RAY E., *Joseph R. DeLamar Professor of Administrative Medicine; Associate Dean (Public Health)*; A.B., Iowa, 1936; M.D., 1941; M.P.H., Johns Hopkins, 1947
- OTI, FERDINAND A., *Assistant Clinical Professor of Dentistry*; D.M.D., Harvard, 1928
- RNER, JOSEPH C., *Associate Professor of Clinical Medicine*; A.B., Columbia, 1929; M.D., 1933; Med.Sc.D., 1940
- N DYKE, HARRY B., *David Hosack Professor of Pharmacology*; B.S., Chicago, 1918; Ph.D., 1921; I.D., Rush, 1923
- NNART, GEORGE P., *Assistant Professor of Pathology*; A.B., Wesleyan, 1948; M.D., Rochester, 1953
- RLIN, WILLIAM A., *Assistant Clinical Professor of Dentistry*; A.B., Columbia, 1929; D.D.S., 1931
- CALE, CARMINE T., *Associate Professor of Clinical Neurology*; A.B., New York University, 1929; I.D., 1933
- N LACKUM, WILLIAM H., *Assistant Clinical Professor of Orthopedic Surgery*; B.S., Iowa, 1916; I.D., 1918; Med.Sc.D., Columbia, 1935
- SBURGH, GILBERT J., *Associate Professor of Obstetrics and Gynecology*; A.B., Princeton, 1938; I.D., Johns Hopkins, 1942
- ELSCH, HEINRICH B., *Professor of Biochemistry*; M.D., Prague, 1929; Ph.D., 1930
- LCOTT, WILLIAM W., *Associate Professor of Physiology*; A.B., Yale, 1933; Ph.D., Columbia, 1944
- LTNER, JULES, *Associate Professor of Clinical Otolaryngology*; M.D., University of Debrecen (Hungary), 1933
- NG, SHIH-CHUN, *Professor of Pharmacology*; B.S., Yenching, 1931; M.D., Peiping Union Medical College, 1935; Ph.D., Northwestern, 1940
- SSERMAN, LOUIS R., *Assistant Clinical Professor of Medicine*; A.B., Harvard, 1931; M.D., Rush, 1935
- TERS, EDWARD G., *Assistant Clinical Professor of Obstetrics and Gynecology*; Ph.B., Yale, 1919; I.D., Harvard, 1922
- TKINS, MELVIN B., *Assistant Professor of Clinical Orthopedic Surgery*; A.B., Utah, 1930; M.B., Northwestern, 1935; M.D., 1936
- BER, JOHN, *Assistant Clinical Professor of Psychiatry*; A.B., Duke, 1939; M.D., Yale, 1943
- EKS, DAVID M., *Assistant Clinical Professor of Surgery*; M.D., Michigan, 1927
- GRIA, RENÉ, *Assistant Professor of Medicine*; I.D., Liège, 1936; Med.Sc.D., Columbia, 1945
- INGARTEN, BERTHOLD, *Assistant Clinical Professor of Medicine*; M.D., Frankfurt, 1922
- ISS, BENJAMIN, *Assistant Professor of Biochemistry*; B.S., Iowa, 1944; Ph.D., Illinois, 1949
- ITZEN, HYMAN G., *Assistant Clinical Professor of Neurology*; A.B., New York University, 1934; M.D., 1938
- LLS, JOSEPHINE S., *Associate Professor of Radiology*; A.B., Barnard, 1932; M.D., Columbia, 1938
- RNER, SIDNEY C., *Associate Professor of Clinical Medicine*; A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937
- WERTHEIM, ARTHUR R., *Assistant Professor of Medicine*; A.B., Dartmouth, 1935; M.D., Jefferson, 1939
- WHEELER, MAYNARD C., *Clinical Professor of Ophthalmology*; A.B., Stanford, 1926; M.D., Columbia, 1929; Med.Sc.D., 1938
- WHITMAN, CLIFFORD L., *Assistant Clinical Professor of Dentistry*; D.D.S., Maryland, 1927
- WHITTIER, JOHN R., *Assistant Clinical Professor of Psychiatry*; A.B., Harvard, 1939; M.D., Columbia, 1943
- WILCOX, HERBERT B., JR., *Assistant Clinical Professor of Medicine*; A.B., Yale, 1930; M.D., Columbia, 1934
- WILDE, DELPHINE, *Assistant Professor of Nursing*; B.S., Columbia, 1926
- WILLIAMS, ROGER W., *Associate Professor of Medical Entomology*; B.S., Illinois, 1939; M.S., 1941; Ph.D., Columbia, 1947
- WILSON, IRWIN B., *Associate Professor of Biochemistry*; B.S., College of the City of New York, 1941; A.M., Columbia, 1947; Ph.D., 1948
- WISHAM, LAWRENCE H., *Assistant Clinical Professor of Physical Medicine and Rehabilitation*; B.S., New York University, 1938; M.D., Chicago, 1943
- WOLF, ABNER, *Professor of Neuropathology*; A.B., Columbia, 1923; M.D., 1926
- WOLF, BERNARD S., *Associate Clinical Professor of Radiology*; B.S., New York University, 1932; M.D., 1936
- WOLFF, JAMES A., *Assistant Clinical Professor of Pediatrics*; A.B., Harvard, 1935; M.D., New York University, 1940
- WOOD, CHARLES L., *Associate Clinical Professor of Pediatrics*; B.S., New York University, 1926; M.D., Yale, 1930
- WOODMAN, DE GRAAF, *Clinical Professor of Otolaryngology*; B.S., Cornell, 1917; M.D., 1926
- WYLLIE, ROBERT H., *Clinical Professor of Surgery*; Ph.B., Yale, 1927; M.D., Columbia, 1931
- YAHRI, MELVIN D., *Associate Professor of Clinical Neurology*; A.B., New York University, 1939; M.D., 1943
- ZAMENHOF, STEPHEN, *Associate Professor of Biochemistry*; M.E., Warsaw Polytechnic, 1933; D.Tech.Sc., 1936; Ph.D., Columbia, 1949
- ZEGARELLI, EDWARD V., *Associate Professor of Dentistry*; A.B., Columbia, 1934; D.D.S., 1937; M.S., Chicago, 1942
- ZIMMERMAN, HARRY M., *Professor of Pathology*; B.S., Yale, 1924; M.D., 1927
- ZINSSER, HANS H., *Assistant Professor of Clinical Urology*; B.S., Harvard, 1938; M.D., Columbia, 1942
- ZINTEL, HAROLD A., *Clinical Professor of Surgery*; B.S., Akron, 1934; M.D., Pennsylvania, 1938
- ZUBIN, JOSEPH, *Professor of Medical Psychology*; A.B., Johns Hopkins, 1921; Ph.D., Columbia, 1932

SLANETZ, CHARLES A., *Curator of Animal Husbandry*; B.S., Connecticut, 1922; M.S., 1923; Ph.D., Yale, 1926

For names of associates, lecturers, and assistants, see departmental rosters (pages 26 ff.)

INTERNSHIP PLACEMENTS

CLASS OF 1957

- Adler, Gerald—Presbyterian Hospital, New York City
 Altman, Ronald—Mount Sinai Hospital, New York City
 Ambrose, Robert B.—Roosevelt Hospital, New York City
 Andersen, Leon O.—Bellevue Hospital, New York City
 Armstrong, Donald—Bellevue Hospital, New York City
 Arnow, Lewis—New York Hospital, New York City
 Barrett, Stephen J.—Highland Park General Hospital, Highland Park, Mich.
 Bauman, Gene—Strong Memorial Hospital, Rochester, N. Y.
 Beltrani, Vincent S.—King's County Hospital, Brooklyn, N. Y.
 Berg, Judith L.—Bronx Municipal Hospital, Bronx, N. Y.
 Bertsch, Robert G.—Presbyterian Hospital, New York City
 Bettigole, Richard E.—Bellevue Hospital, New York City
 Bilbao, Marcia K., Roosevelt Hospital, New York City
 Bockol, Joel M.—Roosevelt Hospital, New York City
 Bono, Vincent H., Jr.—Duke Hospital, Durham, N. C.
 Boulay, Roger J.—Strong Memorial Hospital, Rochester, N. Y.
 Brandfonbrener, Alice G.—Lenox Hill Hospital, New York City
 Breen, Francis J.—St. Vincent's Hospital, New York City
 Brown, Gordon—University of Virginia Hospital, Charlottesville, Va.
 Bryson, Michael F.—Mary Imogene Bassett Hospital, Cooperstown, N. Y.
 Buchwald, Henry—Presbyterian Hospital, New York City
 Bucknam, Charles A.—Johns Hopkins Hospital, Baltimore, Md.
 Burkhart, Charles B.—Pennsylvania Hospital, Philadelphia, Pa.
 Burnell, George M.—King's County Hospital, Brooklyn, N. Y.
 Chandler, Stephen V.—St. Luke's Hospital, New York City
 Danielski, Edward F.—Bellevue Hospital, New York City
 Davis, John S., Jr.—University of California Hospital, San Francisco, Calif.
 Deaton, Hugo L.—Duke Hospital, Durham, N. C.
 Dede, Anthony—New York Hospital, New York City
 Dische, Renate—Bellevue Hospital, New York City
 Drake, George H., Jr.—Pennsylvania Hospital, Philadelphia, Pa.
 Ertel, Norman H.—Bronx Municipal Hospital, Bronx, N. Y.
 Faverio, Charles D., Jr.—Bellevue Hospital, New York City
 Finke, Stanley R.—Bronx Municipal Hospital, Bronx, N. Y.
 Freeman, Richard G.—St. Luke's Hospital, New York City
 Gerber, Donald A.—Johns Hopkins Hospital, Baltimore, Md.
 Ginsburg, Iona H.—Mount Sinai Hospital, New York City
 Gregory, Charles H.—University of Minnesota Hospital, Minneapolis, Minn.
 Grossman, Robert G.—Strong Memorial Hospital, Rochester, N. Y.
 Hammer, Earle—Peter Bent Brigham Hospital, Boston, Mass.
 Harter, Donald H.—Grace-New Haven Hospital, New Haven, Conn.
 Hermann, John S.—University Hospitals, Cleveland, Ohio
 Hinds, Manuel J. A.—St. Vincent's Hospital, New York City
 Hirsh, Charles H.—Mount Sinai Hospital, New York City
 Hyde, Richard W.—University of Pennsylvania Hospital, Philadelphia, Pa.
 Jackman, Allan E.—Mount Sinai Hospital, New York City
 Javid, Jamshid—Montefiore Hospital, New York City
 Jewett, Frank S.—University of Chicago Clinics, Chicago, Ill.
 Johnson, Mayo—Peter Bent Brigham Hospital, Boston, Mass.
 Kelly, Eugene R.—Johns Hopkins Hospital, Baltimore, Md.
 Kennedy, Paul A.—Georgetown University Hospital, Washington, D. C.
 Kessler, Susan R.—Baltimore City Hospital, Baltimore, Md.
 Kimberg, Daniel V.—Presbyterian Hospital, New York City
 Koff, Arnold M.—Hartford Hospital, Hartford, Conn.
 Kwit, Robert B.—University of California Hospital, San Francisco, Calif.
 Lafer, Charlotte Z.—King's County Hospital, Brooklyn, N. Y.
 Lafer, Dennis J.—King's County Hospital, Brooklyn, N. Y.
 Lazor, Michael Z.—University of Wisconsin Hospital, Madison, Wis.
 Leach, Robert E.—University of Minnesota Hospital, Minneapolis, Minn.
 Lerner, Burton A.—Bellevue Hospital, New York City
 Linsky, Ronald M.—Bellevue Hospital, New York City
 Lyle, Carl B.—University of California Hospital, San Francisco, Calif.
 Mahoi, Moses M.—Detroit Receiving Hospital, Detroit, Mich.
 Mancusi Ungaro, Pier—Presbyterian Hospital, New York City
 Mason, James L.—Hermann Hospital, Houston, Tex.
 McDonagh, Thomas J.—Bronx Municipal Hospital, Bronx, N. Y.
 Metzger, Henry—Presbyterian Hospital, New York City
 Mooney, Vert—Presbyterian Hospital, Pittsburgh, Penn.
 Mooring, Paul K.—Bellevue Hospital, New York City

ter, Raymond D.—Bellevue Hospital, New York City
 holson, Denis—United States Public Health Service, Boston, Mass.
 dick, Martin—Bellevue Hospital, New York City
 nsby, John W.—King County Hospital, Seattle, Wash.
 borne, Alan W.—Presbyterian Hospital, New York City
 ge, Lyman A.—Stanford University Hospitals, San Francisco, Calif.
 rowski, Stanley—St. Luke's Hospital, New York City
 tt, Joan M.—Greenwich Hospital, Greenwich, Conn.
 lack, Isabel K.—Bronx Municipal Hospital, Bronx, N. Y.
 lack, Simeon—Bronx Municipal Hospital, Bronx, N. Y.
 t, Stephen L.—Montefiore Hospital, New York City
 he, John C.—King County Hospital, Seattle, Wash.
 ymond, Samuel—Graduate Hospital, Philadelphia, Penn.
 lly, Robert J.—Grace-New Haven Hospital, New Haven, Conn.
 angos, William D.—Roosevelt Hospital, New York City
 hardson, John W.—Duke Hospital, Durham, N. C.
 hey, Katherine E.—Greenwich Hospital, Greenwich, Conn.
 erts, C. Evans, Jr.—Strong Memorial Hospital, Rochester, N. Y.
 erts, John M.—Duke Hospital, Durham, N. C.
 nson, Dwight R.—Massachusetts General Hospital, Boston, Mass.
 enberg, Stanley E.—Bellevue Hospital, New York City
 ven, Robert B.—St. Luke's Hospital, New York City

Runyon, Ruth Ann J.—St. Luke's Hospital, New York City
 Saunders, Bartlett M.—Bellevue Hospital, New York City
 Sciarra, John J.—Grace-New Haven Hospital, New Haven, Conn.
 Shields, Charles E.—Army Medical Service Hospitals, Valley Forge Hospital, Penn.
 Smith, Jeanne—Strong Memorial Hospital, Rochester, N. Y.
 Stites, Temple B.—University of Pennsylvania Hospital, Philadelphia, Penn.
 Strauss, Eric—University of California Hospital, San Francisco, Calif.
 Tenduf La, Tenki S.—University of California Hospital, San Francisco, Calif.
 Tignor, Sterling P.—Boston City Hospital, Boston, Mass.
 Traeger, Donald M.—University of Minnesota Hospital, Minneapolis, Minn.
 Triedman, Ruth E.—St. Luke's Hospital, New York City
 Vorhaus, Elaine F.—Presbyterian Hospital, New York City
 Wallace, Robert B.—St. Vincent's Hospital, New York City
 Walzer, Robert S.—Jackson Memorial Hospital, Miami, Fla.
 Weiner, Robert M.—Strong Memorial Hospital, Rochester, N. Y.
 Weser, Elliot—King County Hospital, Seattle, Wash.
 Wharton, Ralph N.—Bellevue Hospital, New York City
 Wheeler, William M.—Boston City Hospital, Boston, Mass.
 Wilson, Peter G.—St. Luke's Hospital, New York City
 Wohl, Martin J.—Barnes Hospital, St. Louis, Mo.
 Zarem, Harvey A.—Johns Hopkins Hospital, Baltimore, Md.
 Zuckerman, Frederick—Bronx Municipal Hospital, Bronx, N. Y.

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1958

Allen, John Lawrence B.S., Massachusetts Institute of Technology, 1954	Summitt, N.J.	Finkelstein, James D. A.B., Harvard, 1954	Rockville Centre, N.Y.
Ames, Richard Pollard A.B., Williams, 1954	Northampton, Mass.	Forde, Kenneth A. B.S., College of the City of New York, 1954	New York City
Arida, Edward Juad A.B., Colgate, 1954	Brooklyn, N.Y.	Forland, Marvin A.B., Colgate, 1954	Irvington, N.J.
Aron, Alan Milford B.S., Tufts, 1954	White Plains, N.Y.	Friendly, David Stern A.B., Carleton, 1954	New York City
Ashworth, John Sheriden A.B., Princeton, 1954	Richmond, Va.	Galton, Barry B. A.B., Yale, 1954	New York City
Atwood, William Goodson, Jr. A.B., Harvard, 1954	Carrollton, Mo.	Gaynor, Evelyn A.B., Hunter, 1952	New York City
Barondes, Samuel Herbert A.B., Columbia, 1954	Brooklyn, N. Y.	Gilbert, Arnold A.B., Harvard, 1954	New York City
Barzel, Uriel Shimon A.M., Hebrew University, 1951	Haifa, Israel	Goldman, William Herman B.S., Tufts, 1954	Brooklyn, N.Y.
Beck, Mary Ellen A.B., Radcliffe, 1954	Cleveland, Ohio	Gottlieb, Arlan Jay A.B., Columbia, 1954	New York City
Blahut, Robert Joseph A.B., Princeton, 1954	Dunellen, N.J.	Green, Lawrence Perry, Jr. A.B., Houghton, 1954	Houghton, N.Y.
Boies, Lawrence Randall, Jr. A.B., Harvard, 1954	Hopkins, Minn.	Gresham, Glen Edward A.B., Harvard, 1953	Bethany, W. Va.
Brackett, John William, Jr. A.B., Columbia, 1954	Concord, N.H.	Hardy, James H., III A.B., Harvard, 1952	Havertown, Pa.
Brander, Jerome Henry A.B., Columbia, 1954	Cedarhurst, N.Y.	Harris, Paul Donald A.B., Princeton, 1954	West Englewood, N.J.
Bransome, Edwin Dagobert, Jr. A.B., Yale, 1954	Rumson, N.J.	Harris, Peyton R., Jr. A.B., Harvard, 1953	New York City
Brenner, Richard Wolff A.B., Princeton, 1954	Jersey City, N.J.	Hitchcock, John A.B., Hamilton, 1954	Los Angeles, Calif.
Britten, John Sidney B.S., Yale, 1954	New York City	Hnat, Richard Frederick A.B., Princeton, 1954	Elizabeth, N.J.
Brown, James Ballantine B.S., Rutgers, 1953	New York City	Hofreuter, Don Henry A.B., Princeton, 1954	Wheeling, W. Va.
Burger, Karl A.B., Columbia, 1954	Brooklyn, N.Y.	Hopewell, William Scott A.B., Yale, 1954	Cincinnati, Ohio
Campbell, Robert Goetze A.B., Colgate, 1954	New Canaan, Conn.	Horwitz, Bert Stuart A.B., Columbia, 1954	Brooklyn, N.Y.
Charlton, Maurice H. M.A., Oxford, 1950	Oxford, England	Hunt, Winslow Robert A.B., Chicago, 1946; A.M., 1950	Detroit, Mich.
Cherry, Sheldon Harold A.B., Columbia, 1954	Brooklyn, N.Y.	Jewell, James Hyland, Jr. A.B., Lehigh, 1954	Pittsburgh, Pa.
Clift, George Vincent B.S., St. Lawrence, 1954	Lake Peekskill, N.Y.	Johnson, Theodore Herbert A.B., Harvard, 1954	New Britain, Conn.
Collins, Daniel Joseph, Jr. A.B., Harvard, 1954	Haverhill, Mass.	Jurkowitz, Lawrence A.B., Harvard, 1953	College Point, N.Y.
Cooper, Herbert L. A.B., Columbia, 1955	Far Rockaway, N.Y.	Kaiser, Gerard Alan A.B., Princeton, 1954	Brooklyn, N.Y.
Crago, Harry Robert, Jr. A.B., Princeton, 1954	Schenectady, N.Y.	Kane, William James A.B., Holy Cross, 1954	Brooklyn, N.Y.
DeBellis, Robert H. B.S., Queens, 1951	Great Neck, N.Y.	Kantor, Joseph A.B., Columbia, 1954	Yonkers, N.Y.
Delaney, Harry M. A.B., Columbia, 1954	New York City	Kantowitz, Paul Alan A.B., Swarthmore, 1954	Brooklyn, N.Y.
Dennis, Brown W. B.S., Davidson, 1954	Macon, Ga.	Kaplan, Norman Lionel A.B., Wesleyan, 1954	New York City
Dougan, Jerome Wayne A.B., Yale, 1954	Western Springs, Ill.	Kazemi, Homayoun A.B., Lafayette, 1954	Teheran, Iran
Dulany, Virginia Ann A.B., Bryn Mawr, 1954	Fruitland, Md.	Kim, Byong Mok A.B., California, 1953	Glendora, Calif.
Edelmann, Frederic Lewis A.B., Princeton, 1954	Brooklyn, N.Y.	Korenman, Stanley George A.B., Princeton, 1954	Brooklyn, N.Y.
Edelman, Werner, Joseph A.B., Fordham, 1954	West Englewood, N.J.	Landau, Benjamin Barry A.B., Yale, 1954	Stamford, Conn.
		Lazerson, Alan Martin A.B., Rochester, 1954	Rochester, N.Y.

and, Oliver Stevens, Jr. A.B., Harvard, 1954	West Newton, Mass.	Theobald, Thomas J. B.S., Fordham, 1953	Port Washington, N.Y.
berg, Donald A. B. A.B., Amherst, 1954	Brooklyn, N.Y.	Timmons, Richard Palmer A.B., Ohio Wesleyan, 1950	Upper Montclair, N.J.
awista, Stephen Evan A.B., Harvard, 1954	Pound Ridge, N.Y.	Toole, Allan Lawrence A.B., Yale, 1954	Scarsdale, N.Y.
ox, Marvin Henry A.B., Princeton, 1954	Sappington, Mo.	Van Cleve, Robert Baldwin A.B., Princeton, 1954	Moberly, Mo.
ler, Ronald Baker A.B., Princeton, 1954	Los Angeles, Calif.	Wacker, Ernest Andrew A.B., Oberlin, 1954	Forest Hills, N.Y.
ley, Thomas James A.B., Princeton, 1954	Huntington, N.Y.	Watson, Richard Merz A.B., Harvard, 1954	South Orange, N.J.
rris, Thomas Quinlan A.S., Notre Dame, 1954	Yonkers, N.Y.	Wechsler, Elise C. B.S., Queens College, 1954	Forest Hills, N.Y.
ve, Charles A.B., Yale, 1954	New Canaan, Conn.	Weeks, Walter Grant A.B., Williams, 1954	Dalton, Mass.
ton, Lawrence Walter A.B., Colgate, 1954	Sterling, Ill.	Weiner, Daniel Lee B.S., Union College, 1954	St. Albans, N.Y.
sloff, A. Stephen A.B., Columbia, 1954	New York City	Weir, James Henry, III A.B., Princeton, 1954	Bloomfield, N.J.
erson, Andrew Henry A.B., North Carolina, 1954	Bronxville, N.Y.	Weir, William Strickland A.B., Louisville, 1954	Louisville, Ky.
lman, Carl Meyer A.B., Amherst, 1954	Brooklyn, N.Y.	Weiss, Carl Austin A.B., Holy Cross, 1954	New York City
zin, Karl Herman A.B., Columbia, 1954	North Bergen, N.J.	White, Jules A.B., Columbia, 1954	New York City
cus, Ralph Albert A.S., Brooklyn, 1954	Brooklyn, N.Y.	White, Richard Laverne A.B., Princeton, 1951	Sacramento, Calif.
der, Michael S. A.B., Harvard, 1954	Arlington, Mass.	Wilcke, John Alan A.B., Columbia, 1954	New York City
hter, Evelyn Birkeland A.B., Washington, 1953	Seattle, Wash.	Wilcox, Donald F. A.B., Yale, 1953	Greenfield, Mass.
lon, Herrick Clark A.B., Bowdoin, 1954	Bangor, Me.	Zeidenberg, Philip A.B., Harvard, 1954	Brooklyn, N.Y.
fwarg, Howard Philip A.B., Columbia, 1954	New York City		
instein, Morton K. A.B., Adelphi, 1951	Indianapolis, Ind.		
A.M., Brooklyn, 1952			
toro, Benjamin Timothy A.B., Yale, 1953	Cornwall-on-Hudson, N.Y.		
refer, Robert Earl A.B., Columbia, 1954	Denver, Colo.		
arer, Lawrence Leslie A.B., Columbia, 1954	Rego Park, N.Y.		
des, Sim Warren A.B., Yale, 1954	Woodmere, N.Y.		
inberg, David A.B., Columbia, 1954	Memphis, Tenn.		
a, Thomas Michael A.B., Holy Cross, 1952	Florence, Mass.		
rry, Robert Walter A.B., Columbia, 1954	Nutley, N.J.		
gel, Sara Ethel A.S., Tufts, 1954	White Plains, N.Y.		
der, William A.B., Yale, 1954	Chicopee Falls, Mass.		
elman, Harold Barry A.B., Columbia, 1954	Brooklyn, N.Y.		
nson, Boudinot, Jr. A.S., Columbia, 1955	Greenwich, Conn.		
uss, Arthur J. A.B., Brooklyn, 1953	Brooklyn, N.Y.		
ckler, Allen Rogers Carter A.B., Yale, 1951	Louisville, Ky.		
al, Norman A.B., Columbia, 1954	Brooklyn, N.Y.		
lerday, Charlotte Graves A.B., Vassar, 1954	New York City		

Fourth Year: Class of June, 1958 116

THIRD-YEAR CLASS—CLASS OF JUNE, 1959

Allen, Fred Huntley, Jr. B.S., Davidson, 1955	Wadesboro, N.C.
Applebaum, William Schwartz A.B., Hunter, 1955	New York City
Baker, Lester A.B., Columbia, 1951	Staten Island, N.Y.
Barrett, C. Redington, Jr. A.B., Yale, 1955	Greenwich, Conn.
Barth, Donald E. A.B., Columbia, 1954	New York City
Baum, Richard Samuel A.B., Amherst, 1955	Detroit, Mich.
Befeler, David A.B., Columbia, 1955	Long Valley, N.J.
Benjamin, William B. A.B., Columbia, 1955	Brooklyn, N.Y.
Berkman, Peter Morris A.B., Harvard, 1955	New York City
Brittin, Geoffrey Mellor Burks, William Parnelle A.B., Princeton, 1955	Bergenfield, N.J. Elizabeth, N.J.
Byrne, Earl Buckingham B.S., Princeton, 1954	Shaker Heights, Ohio
Cantwell, Nelson Henry B.S., Canisius, 1954	Buffalo, N.Y.
M.S., Fordham, 1948 Ph.D., Fordham, 1952	
Carter, James Rose, Jr. A.B., Princeton, 1955	New York City
Chase, Richard Allen A.B., Chicago, 1952	South Orange, N.J.

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Civan, Mortimer Mordecai A.B., Columbia, 1955	Brooklyn, N.Y.	Hulka, Barbara Sorenson A.B., Radcliffe, 1952	New York Ci
Clark, Cornelius, John G. A.B., Harvard, 1952	New York City	M.S., Juilliard, 1954	
Cohen, Howard A.B., Washington and Jefferson, 1951	New York City	Izard, Mark Whitaker A.B., Columbia, 1954	New York Ci
Collier, Robert Harrison A.B., Princeton, 1955	Indianapolis, Ind.	Jesse, Mary Jane A.B., Nazareth, 1939	New Canaan, Con
Collins, John Austin A.B., Fordham, 1955	New York City	Jones, Ellyn Palmer A.B., Wooster, 1955	Princeton, N.
Constantin, LeRoy Liberal A.B., Columbia, 1955	Clifton, N.J.	Jones, Robert Holmes B.S., Davidson, 1955	Macon, G
Cukier, Daniel Simon B.S., College of the City of New York, 1955	New York City	Justice, James W. A.B., Yale, 1954	Clinton, Ten
Davidoff, Frank Fisher A.B., Harvard, 1955	New Canaan, Conn.	Kane, Kendall Kent A.B., Princeton, 1955	Dover, Oh
Davidson, Charles Bailey B.S., Yale, 1955	Portsmouth, N.H.	Kanter, Ira Edward A.B., Haverford, 1955	Newton, Ma
Druss, Richard George A.B., Yale, 1955	New York City	Kaplan, Edward Steven A.B., Yale, 1955	Memphis, Ten
Dunne, Peter Benjamin A.B., Harvard, 1955	Washington, D.C.	Keller, Jean Bohnet B.S., Cornell, 1955	Bronxville, N.
Edgar, Malcolm Shepherd A.B., Princeton, 1955	Summit, N.J.	Kundel, Harold Louis A.B., Columbia, 1955	Jamaica, N.
Eleuteri, Amerigo John A.B., Princeton, 1955	Trenton, N.J.	Lietman, Paul Stanley A.B., Western Reserve, 1955	Cuyahoga Falls, Oh
Epstein, Manfred David A.B., New York University, 1955	New York City	Linwood, Richard Arnold A.B., Yale, 1955	Bellmore, N.
Faust, Kenneth Joseph A.B., Lehigh, 1955	Shamokin, Pa.	London, Frederick Allan A.B., Princeton, 1955	New York C
Ferber, Andrew Samuel B.S., Wisconsin, 1955	New York City	Ludes, Bernard Francis B.S., Rensselaer Polytechnic Institute, 1955	Valley Stream, N.
First, Robert Alan A.B., Kenyon, 1955	Gambier, Ohio	MacDonald, Carlton, A., Jr., A.B., Princeton, 1954	Baldwin, N.
Foulke, John David A.B., Kenyon, 1955	Steubenville, Ohio	McConnell, Donald Verne A.B., Princeton, 1955	Toronto, Oh
Freeman, Guy Gilmore A.B., Columbia, 1955	Flushing, N.Y.	McHugh, Burton Peek A.B., Harvard, 1954	Bronxville, N.
Gilfillan, John Thomas, Jr. B.S., U.S. Naval Academy, 1944	New York City	McKinney, Alexander Stuart A.B., Princeton, 1955	New York C
M.B.A., Harvard, 1949		Michelsen, Walter James, Jr. A.B., Columbia, 1951	Salt Lake City, Ut
Ginsberg, George L. A.B., Brown, 1955	Fall River, Mass.	Middleton, Augustus Loftus, Jr. A.B., Princeton, 1952	Sumter, S.
Ginsberg, Stanley Arthur A.B., Amherst, 1955	Far Rockaway, N.Y.	Miller, Orlando A.B., Yale, 1955	Tulsa, Ok
Goodman, Beverly June A.B., Goucher, 1954	Baltimore, Md.	Moscarella, Alfred Anthony A.B., Colgate, 1955	Spring Valley, N.
Gordon, I. Bradley A.B., Vermont, 1955	Brooklyn, N.Y.	Mott, Peter Dodge A.B., Princeton, 1955	Washington, D.
Grainger, David William, Jr. B.S., Yale, 1955	Niles, Ohio	Mueller, Mark Noble A.B., Colgate, 1955	Englewood, N
Grosf, Jessica A.B., Wellesley, 1955	Brooklyn, N.Y.	Muiznieks, Ansis B.S., Columbia, 1955	Princeton, N
Gudmundsen, Borre Landaas B.S., U.S. Merchant Marine Academy, 1950	New York City	Munsick, George Washington Munsie, William Johnson B.S., Tufts, 1955	Morristown, N Manchester, Co
Gutmann, Ludwig A.B., Princeton, 1955	Farmingdale, N.J.	Myers, Joseph Kieffer, Jr. A.B., Princeton, 1955	Akron, O
Harris, Donald Lee B.S., Syracuse, 1950	Forest Hills, N.Y.	Nourok, David S. B.S., College of the City of New York, 1955	Brooklyn, N
Herskovic, Teodoro A.B., Harvard, 1955	Mexico, D.F., Mexico	Petersen, Robert Allen B.S., Queens, 1955	St. Albans, N
Hilles, Linda A.B., Barnard, 1955	New York City	Petersen, Veronica Stinnes A.B., Pembroke, 1955	Haverford,
Hillman, Robert Swart B.S., Tufts, 1955	Brooklyn, N.Y.	Phillips, Gene Marshall A.B., Princeton, 1955	Middletown, O
Hollander, Charles S. A.B., Columbia, 1955	New York City	Pines, Joseph A.B., Yale, 1955	New York C
		Pi-Sunyer, F. Xavier A.B., Oberlin, 1955	Montclair N

¹ Withdrew.

n, Fred Estes
 ., Yale, 1955
 Thomas F.
 ., Yale, 1955
 tt, Richmond
 ., Harvard, 1949; LL.B., 1952
 an, Peter I.
 ., Columbia, 1955
 ero, Sherman Richard
 ., Bates, 1955
 ch, Donald
 ., Columbia, 1955
 enberry, Robert Oscar
 ., West Virginia, 1955
 Robert Marshall
 ., Columbia, 1951
 ns, Lee N.
 ., Barnard, 1955
 e, Norman Sterling
 ., Columbia, 1955
 ., Samuel Morton
 ., Hamilton, 1955
 berg, Arthur Henry
 ., Amherst, 1955
 field, Allan G.
 ., Harvard, 1955
 elin, John Winterbotham
 White House Station, N.J.
 ., Harvard, 1954
 rtz, Arnold
 ., Columbia, 1955
 William Vare
 ., Williams, 1955
 Paul Benjamin
 ., Princeton, 1955
 Bennett
 ., Harvard, 1955
 Warner Vincent
 ., Princeton, 1955
 Martin Jay
 ., Hofstra, 1955
 ., Thomas G.
 ., Emory, 1953
 on, Sheila Horn
 ., McGill, 1953
 rt, Kenneth H.
 ., Hobart, 1955
 ., George
 ., Yale, 1955
 h, Berish
 ., Columbia, 1955
 n, Theodore Leonard
 ., Fordham, 1955
 eyer, Gamber Frederick
 ., Kenyon, 1955
 ., Gerasim
 ., Columbia, 1955
 oetzkoy, Marina
 ., Vassar, 1955
 ka, Edward
 ., Hamilton, 1955
 ce, Seymour
 ., Columbia, 1954
 n, Alexander Ashley, Jr.
 ., Princeton, 1955
 s, Charles E.
 ., Yale, 1955
 er, Paul Herbert
 ., Harvard, 1955
 ithrew.

Cleveland, Miss.

Dayton, Ohio

New York City

New York City

Springfield, Mass.

Richmond Hill, N.Y.

Hinton, W.Va.

New York City

New York City

New York City

Paterson, N.J.

Ventnor, N.J.

Brookline, Mass.

White House Station, N.J.

New York City

Wynnewood, Pa.

Rockaway Beach, N.Y.

Brooklyn, N.Y.

Upper Montclair, N.J.

Long Beach, N.Y.

Le Grange, Ga.

New York City

Skaneateles, N.Y.

New Canaan, Conn.

New York City

Leonia, N.J.

Milwaukee, Wis.

New York City

New York City

Hillside, N.J.

New York City

Cincinnati, Ohio

Washington, D.C.

New York City

Wheeler, Leonard, Jr.

A.B., Harvard, 1955

Widrow, David Richard

A.B., Yale, 1954

Wilson, George Campbell, Jr.

A.B., Yale, 1955

Wolf, Sheldon Mark

A.B., Columbia, 1955

Wosnitzer, Maclyn Elliott

A.B., Dartmouth, 1955

Third Year: Class of June, 1959 118

SECOND-YEAR CLASS—CLASS OF JUNE, 1960

Alling, Stearly

Montclair, N.J.

A.B., Wellesley, 1956

Anderson, John Joseph

Cleveland Heights, Ohio

A.B., Williams, 1956

Anderson, Richard Arnold

Greenwich, Conn.

A.B., Wesleyan, 1956

Anderson, Richard Dawson

Birmingham, Ala.

A.B., Birmingham Southern, 1956

Beller, Barry Maurice

New York City

A.B., Columbia, 1956

Blumenthal, Jesse Arthur

Brooklyn, N.Y.

A.B., Columbia, 1956

Bradley, Edward B.

Utica, N.Y.

A.B., Hamilton, 1956

Braun, Peter

Bridgeport, Conn.

B.S., Yale, 1956

Brownlee, William Harry

Charlotte, N.C.

B.S., Davidson, 1956

Callan, Desmond

Brooklyn, N.Y.

A.B., Columbia, 1950

Canellos, George Peter

East Boston, Mass.

A.B., Harvard, 1956

Choy, Martin Frank

Jersey City, N.J.

A.B., Yale, 1956

Clark, Julian Joseph

Brooklyn, N.Y.

A.B., Princeton, 1956

Clutz, Richard Baker

St. Davids, Pa.

A.B., Princeton, 1956

Coats, Thomas F.

Lexington, Ky.

A.B., Kentucky, 1952

Coffey, Edward Lyman

Westfield, N.J.

A.B., Princeton, 1956

Cohen, Michael Irwin

New York City

A.B., Columbia, 1956

Cohen, Peter Jacob

New York City

A.B., Princeton, 1956

Cummings, Dean Winfred

Plains, Mont.

A.B., Montana State, 1952

Dawes, Henry F.

Englewood, N.J.

A.B., Princeton, 1956

Dede, Renee Marilyn

New York City

A.B., New York University, 1953

Denner, Joseph Leroy

Alva, Okla.

A.B., Westminster, 1953

Dennick, Leonard Gainsworth, Jr.

Hamburg, N.Y.

A.B., Colgate, 1956

DeSimone, Arthur Robert

Glendale, N.Y.

B.S., Manhattan, 1956

Doherty, Richard Arthur

Newport, Me.

A.B., Amherst, 1956

Dolganos, Ellen Marie

Jersey City, N.J.

A.B., Vassar, 1956

Downey, James Lewis

Darien, Conn.

A.B., Yale, 1956

Doyle, George B.

Worcester, Mass.

A.B., Harvard, 1956

72 • REGISTER OF STUDENTS

Duncan, William Yeats III B.S., Yale, 1953	New Haven, Conn.	Kroll, Arnold Joseph A.B., Princeton, 1956	Jersey City,
Dunne, Peter B. A.B., Harvard, 1955	Washington, D.C.	Kronfeld, Peter Paul A.B., Wesleyan, 1956	Wilmette
Eddison, Grace Gene A.B., Wellesley, 1949	Wellesley Hills, Mass.	Leach, Charles Nelson A.B., Amherst, 1956	Newfane
Ehrmann, Norbert August A.B., Princeton, 1953	Toms River, N.J.	Lehwalder, Laurus Waldemar B.S., Oregon State, 1952	Butte, M
Emde, Robert Newcomb A.B., Dartmouth, 1956	Katonah, N.Y.	Lennon, Arthur Joseph A.B., Fordham, 1956	New York
Fabrega, Horacio, Jr. A.B., Pennsylvania, 1956	Boston, Mass.	MacLean, Neil Murdo A.B., Hamilton, 1956	Byram, C
Forker, George Norman A.B., Yale, 1956	Pittsburgh, Pa.	MacLowry, James Don A.B., Yale, 1956	Buffalo,
Forwand, Stanley Arthur A.B., Union, 1956	New York City	Marubbio, Adolph T. A.B., New York University, 1956	Brooklyn,
Ginsberg, Joel A.B., Princeton, 1956	Brooklyn, N.Y.	Marx, Herbert J. B.E.E., Rensselaer Polytechnic, 1954	St. Albans,
Glezen, John Marcena A.B., Hamilton, 1956	Cortland, N.Y.	Mayers, Lester Barry A.B., Wisconsin, 1956	New York
Glimsman, Walter Henry A.B., Columbia, 1956	Bronxville, N.Y.	Milligan, Richard Scott A.B., Ohio, 1956	Richmond
Goldfinger, Stephen Edward A.B., Princeton, 1956	Brooklyn, N.Y.	Mogil, Sandra Louise A.B., Barnard, 1956	New York
Goldstein, Malcolm A.B., Columbia, 1956	Forest Hills, N.Y.	Moroff, Saul Victor A.B., Yale, 1956	Reading,
Graham, Paul Albert A.B., Princeton, 1956	Wheeling, W.Va.	Nadel, Alfred Joel A.B., Union, 1956	New York
Hanson, Kenneth Charles A.B., St. Olaf, 1956	Watertown, S.D.	Nelson, Michael Kenneth A.B., Columbia, 1956	Brooklyn,
Harvey, Seth A.B., Princeton, 1955	New York City	Neuhardt, Robert George B.S., Yale, 1956	Pelham Manor,
Heimark, Gregory James A.B., St. Olaf, 1956	Edina, Minn.	Nicklaus, Ted Maurice A.B., Yale, 1956	Amarillo
Heller, Stanley Samuel A.B., Yale, 1956	New York City	Nold, Mary Beatrice A.B., Northwestern, 1946	Berkeley,
Hersh, Evan Manuel B.S., College of the City of New York, 1956	New York City	A.M., Mills, 1948	
Hicks, William Ray A.B., Princeton, 1956	Winnetka, Ill.	B.L.S., California, 1951	Brooklyn,
Hilsen, Rosalind Constance B.S., College of the City of New York, 1956	New York City	Nova, Harvey Ronald A.B., Brooklyn, 1956	New York
Hollander, Joshua A.B., Columbia, 1956	New York City	Oppenheim, Joost Joe A.B., Columbia, 1956	Brooklyn,
Holsclaw, Douglas S., Jr. A.B., Arizona, 1956	Tucson, Ariz.	Palombo, Stanley Robert A.B., Harvard, 1955	New York
Hoppin, Frederic Gallatin, Jr. A.B., Harvard, 1956	Huntington, N.Y.	Penn, Audrey Shields A.B., Swarthmore, 1956	Philadelph
Howes, Edward Lee, Jr. A.B., Yale, 1956	Dobbs Ferry, N.Y.	Phelps, Paulding A.B., Haverford, 1955	Brooklyn,
Janin, Matthew Joel A.B., Columbia, 1956	New York City	Picoff, Ronald Chester A.B., Columbia, 1956	Brooklyn,
Johnson, John Richard B.S., Ohio, 1956	Quaker City, Ohio	Pincus, Jonathan Henry A.B., Amherst, 1956	Springfield,
Kallen, Roland Gilbert A.B., Amherst, 1956	Newark, N.J.	Poliner, George Franklin A.B., Wesleyan, 1956	Hollis
Kao, Priscilla M. N. A.B., Pennsylvania, 1956	Singapore, China	Raine, Alan Charles A.B., Queens, 1953	Clearwater
Kaufman, Roger Stuart A.B., Princeton, 1956	Monroe, N.Y.	Ravel, Richard A.B., Harvard, 1953	Forest Hills
Keller, Howard Irving A.B., Princeton, 1956	Plainfield, N.J.	Reilly, Herbert Faulkner, Jr. A.B., Princeton, 1956	Rye
King, Donald Latham A.B., Stanford, 1956	San Marino, Calif.	Richards, Ernest Carter A.B., Yale, 1956	New York
Klein, Herbert Alan A.B., Columbia, 1956	Upper Montclair, N.J.	Riggins, Robert C. K. A.B., Yale, 1956	Woodmere
Korhammer, Alan Francis A.B., Princeton, 1956	Mt. Vernon, N.Y.	Robbins, Jay Howard A.B., Harvard, 1956	Roshol
Kott, Stephen A.B., Michigan, 1956	Verona, N.J.	Roman, Theodore Presley A.B., Dakota Wesleyan, 1956	New York
		Rosen, Ora A.B., Barnard, 1956	

ad, Christopher V., Jr. Princeton, 1956 Charles Monroe Arizona, 1956 John Richard Manhattan, 1956 William Harry Amherst, 1956 Stewart Marvin New York University, 1956 Frederic DeGraw Trinity, 1956 tz, Elias Columbia, 1956 Dexter S. Y. Kenyon, 1956 Lloyd DuBois, Jr. California, 1956 Richard Stanton Wesleyan, 1956 Martin Lawrence Hamilton, 1956 George Richard Oklahoma, 1956	Reedsville, Pa. Flagstaff, Ariz. Brooklyn, N.Y. Mt. Clemens, Mich. Yonkers, N.Y. Teaneck, N.J. Brooklyn, N.Y. Honolulu, T.H. Oakdale, Calif. Laconia, N.H. Newark, N.J. Lawton, Okla.	Stassa, George A.B., Columbia, 1956 Suarez, John Michael A.B., Columbia, 1956 Swinton, Neil Williams, Jr. A.B., Haverford, 1956 Taylor, William R. B.S., Worcester Polytechnic Institute, 1955 Temple, William Edward A.B., Columbia, 1956 Touloukian, Robert James A.B., Columbia, 1956 Troupin, Allan Stuart A.B., Columbia, 1956 Trunel, Thomas Lowry Urschel, William Powell A.B., Princeton, 1956 Weiss, Bernard A.B., Columbia, 1956 Wolfe, David Emery A.B., Columbia, 1956	Forest Hills, N.Y. New York City Waban, Mass. Leominster, Mass. Ridgewood, N.J. New York City Geneva, Switzerland Kirksville, Mo. Bowling Green, Ohio Forest Hills, N.Y. Seattle, Wash.
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Second Year: Class of June, 1960 120

STUDENTS ACCEPTED FOR THE CLASS OF 1961

Allen, Charles DeBertram A.B., Harvard, 1957	Sanford, Me.	DeWitt, Robert James A.B., Carleton, 1957	Oconto, W.
Alling, Frederic Augustus A.B., Princeton, 1952	Montclair, N.J.	Duberstein, Joel Lawrence A.B., Princeton, 1957	Bayonne, N.
Argall, Temby Richie A.B., Yale, 1957	Lakeville, Conn.	Durante, Lawrence John A.B., Princeton, 1957	Long Island City, N.
Banks, Peter Alan A.B., Harvard, 1957	Chestnut Hill, Mass.	Dwyer, Edward Michael A.B., Columbia, 1957	Plymouth, N.
Bates, Griffin Miller, Jr. A.B., Hamilton, 1957	Jamaica, N.Y.	Emery, Edward Stanley, III A.B., Princeton, 1957	Milton, M.
Becker, Heber Weidler, Jr. B.S., Franklin and Marshall, 1957	Lancaster, Pa.	Finkel, Jerry Bernard A.B., Columbia, 1957	New York
Beckman, Daryl Elizabeth A.B., Mount Holyoke, 1957	Bryn Mawr, Pa.	Fleming William Hare A.B., Yale, 1957	Columbus, O.
Benjamin, Burton Irving A.B., Hamilton, 1957	Forest Hills, N.Y.	Flood, Barbara Joyce A.B., Wellesley, 1953	New York
Billig, Stuart Lawrence A.B., Hamilton, 1957	New York City	Gale, James Lyman A.B., Harvard, 1957	Concord, M.
Bowe, Edward Thomas B.S., Columbia, 1956	Bronx, N.Y.	Gilman, Richard Alan A.B., Williams, 1957	Swampscott, M.
Bowers, Henry Myers, Jr. A.B., Princeton, 1957	Chatham, N.J.	Glass, Joseph Lewis A.B., Princeton, 1957	Lynbrook, N.
Brill, Charles Beauford A.B., Lafayette, 1957	New York City	Golden, Gerald Samuel A.B., Princeton, 1957	Newark, N.
Brunjes, Carl Frederick A.B., Yale, 1957	Hartsdale, N.Y.	Gregory, Raymond Frederick A.B., Princeton, 1957	Galveston, T.
Bullwinkel, George Albert, Jr. A.B., Yale, 1957	Rye, N.Y.	Grossbard, Lionel A.B., Columbia, 1957	Brooklyn, N.
Campbell, Allen Barry A.B., Princeton, 1957	Cleveland Heights, Ohio	Grossman, Frederick Maurice A.B., Harvard, 1957	El Paso, T.
Christensen, Edward Warren A.B., Columbia, 1957	Harlan, Iowa	Guggenheim, Frederick Gibson A.B., Yale, 1957	Washington, I.
Clark, Hugh A.B., Williams, 1957	Pottersville, N.J.	Gwyn, Paul Perkins, Jr. A.B., Princeton, 1957	Elkin, N.
Clevenger, Joseph Henry, Jr. A.B., Princeton, 1957	Muncie, Ind.	Hendricks, Ed Jerald A.B., Rice Institute, 1957	Dallas, T.
Cohen, Martin Noel A.B., Harvard, 1957	Passaic, N. J.	Hope, Peter Blanchard A.B., Harvard, 1957	New York
Cohen, Stanley A.B., Columbia, 1957	Brooklyn, N.Y.	Janoski, Alfonso Hubert A.B., Seton Hall, 1957	Newark, N.
Cohn, Lawrence Jerome B.S., Franklin and Marshall, 1957	Brooklyn, N.Y.	Kalinske, Robert Wayne A.B., Yale, 1957	Tucson, A.
Corning, Howard Burt A.B., Harvard, 1957	Syosset, N.Y.	Katz, Edward Lyle A.B., Princeton, 1957	Hartford, C.
Curran, John Patrick A.B., Saint Mary's, 1957	St. Paul, Minn.	Katz, Leonard Allen A.B., Yale, 1957	Buffalo, N.
Daley, Sara Elizabeth A.B., Vassar, 1957	Bronxville, N.Y.	Kim, Dong Su A.B., Bowdoin, 1957	Taejon, K.
Danes, Betty Shannon A.B., Mount Holyoke, 1948	Brightwaters, N.Y.	Knebel, Ruthmary Spear A.B., Mount Holyoke, 1956	Canaan, N.
M.A., Texas, 1949 Ph.D., Iowa, 1952		Kohler, Peter Francis A.B., Princeton, 1957	Milwaukee, W.
Dans, Peter Emanuel B.S., Manhattan, 1957	New York City	Kohn, Leonard David A.B., Columbia, 1957	Easton
Dantzler, William Hoyt A.B., Princeton, 1957	Milwaukee, Wis.	Kovel, Joel Stephen B.S., Yale, 1957	Rockville Centre, N.
Darey, Mary Louise A.B., Wellesley, 1957	Livermore Falls, Me.	Labourdette, Irene Lois A.B., Oberlin, 1952	Lincoln Park, W.
Decker, Norman A.B., Columbia, 1957	New York City	A.M., Iowa, 1954	
Dennis, Allen Johnson, Jr. A.B., Rice Institute, 1957	Macon, Ga.	Lemlich, Arthur B.S., Columbia, 1957	New York
Deuel, Thomas Franklin A.B., Princeton, 1957	Short Hills, N.J.	Levitzky, Munro Joseph A.B., Columbia, 1957	Brooklyn, N.
		Lightdale, Mayer Raynes A.B., Princeton, 1957	Jersey City, N.

chein, Stanley	Flushing, N.Y.	Ryan, John Francis	Jamaica Plain, Mass.
B., Columbia, 1957		A.B., Boston College, 1957	
art, William Ernst	Woodhaven, N.Y.	Schwartzman, William Robert	New York City
B., Columbia, 1957		A.B., Columbia, 1957	
ic, Thomas McCulloch	Minden, Nev.	Scott, Robert Henderson	Northfield, Minn.
B., Carleton, 1957		A.B., Carleton, 1957	
iza, Ronald Morton	Jackson Heights, N.Y.	Sheagren, John Newcomb	Rockford, Ill.
B., Columbia, 1957		A.B., Carleton, 1957	
ruse, Donald James	New York City	Sherwood, Louis Maier	Hempstead, N.Y.
B., Harvard, 1957		A.B., Johns Hopkins, 1957	
glin, Arnold Gershaw	Hollywood, Calif.	Skolnick, M. Leon	Forest Hills, N.Y.
B., Harvard, 1957		A.B., Columbia, 1957	
yes, Frederick Towne	Battle Creek, Mich.	Song, Chull Sung	Seoul, Korea
B., Princeton, 1957		B.S., Birmingham-Southern, 1957	
er, Arthur Young	Fort Lee, N.J.	Standfast, Susan Jane	Binghamton, N.Y.
M.E., Rensselaer Polytechnic Institute, 1953	Milwaukee, Wis.	A.B., Wells, 1957	
er, James Hugh		Stevenson, Donald Day	Rye, N.Y.
B., Princeton, 1957		A.B., Princeton, 1957	
erson Arthur Theodore	New York City	Stouch, William Haydn	York, Pa.
B., Columbia, 1957		A.B., Princeton, 1957	
heiser, Peter John	New York City	Strayer, Luther Milton, III	Stratford, Conn.
B., Columbia, 1957		A.B., Princeton, 1957	
gan, Walter Edward, III	Glen Ridge, N.J.	Stuart, Philip Frazer	Lakewood, Ohio
B., Wesleyan, 1957		A.B., Bowdoin, 1957	
are, Robert John	Garden City, N.Y.	Talbott, John Andrew	Eden (Buffalo), N.Y.
B., Princeton, 1957		A.B., Harvard, 1957	
amie, Benjamin Abraham	Brooklyn, N.Y.	Teran, Irwin Burton	Flushing, N.Y.
B., Columbia, 1957		A.B., Columbia, 1957	
, Robert Marshall	Urbana, Ohio	Terry, Stephen	Tucson, Ariz.
B., Harvard, 1957		A.B., B.S., Arizona, 1957	
nnell, Francis Daniel	Uxbridge, Mass.	Thurer, Richard Jerome	Hicksville, N.Y.
B., Harvard, 1957		A.B., Princeton, 1957	
ger, Otto Henry, Jr.	San Francisco, Calif.	Townsend, Eleanor Meneely	New York City
B., Reed, 1957		A.B., Sarah Lawrence, 1957	
p, James Louis	Worcester, Mass.	Troy, Bart Lynch	Melrose, Mass.
B., Michigan, 1957		A.B., Georgetown, 1957	
uan, Helen Cornelia	Great Neck, N.Y.	Tucker, Marjorie Jane	Brooklyn, N.Y.
B., Rochester, 1957		A.B., Radcliffe, 1957	
, Paul Richard	Hackensack, N.J.	Wanderer, Alan Anson	Woodside, N.Y.
B., Princeton, 1957		A.B., Earlham, 1957	
el, William	New York City	Wanger, Stephen Lewis	Albany, N.Y.
B., Columbia, 1957		A.B., Yale, 1957	
nyder, David Navarre	Chester, N.Y.	Watson, Charles Gray	Carnegie, Pa.
B., Columbia, 1957		A.B., Princeton, 1957	
ins, Michael Daniel, Jr.	West Englewood, N.J.	Weber, Eric Taylor	Clinton, N.Y.
B., Amherst, 1955		A.B., Oberlin, 1957	
nson, James Alan	Mount Vernon, N.Y.	Weil, Richard, III	New York City
B., Wesleyan, 1957		A.B., Princeton, 1957	
nson, John Lee	Omaha, Neb.	Whaley, David Anthony	Kenmore, N.Y.
B., Yale, 1957		A.B., Rochester, 1957	
well, Richard George	Pittsburgh, Pa.	Wilson, Paul Tyler	Park Ridge, Ill.
B., Hamilton, 1957		A.B., Columbia, 1954	
, John Friesner	Katonah, N.Y.		
B., Harvard, 1957			

CONDENSED ACADEMIC CALENDAR

The complete Academic Calendar for the year 1957-1958 may be obtained from the Secretary of the University.

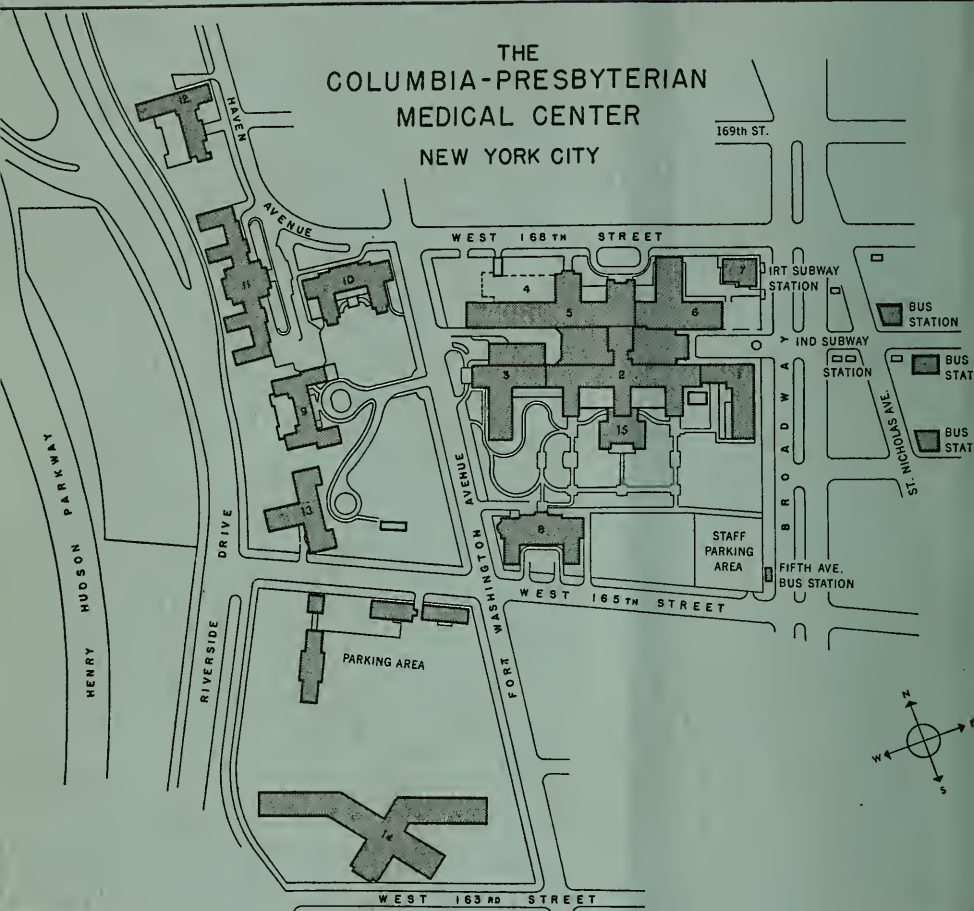
1957

May	23	Thursday, through May 24, Friday. Registration (including payment of University fee) for the Third- and Fourth-Year Classes.
June	3	Monday. New academic year begins for the Third- and Fourth-Year Classes.
August	1	Thursday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
September	12	Thursday, through September 14, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
September	16	Monday. Classes begin.
October	8	Tuesday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D to be awarded in October.
November	5	Tuesday. Election Day. Holiday.
November	28	Thursday. Thanksgiving Day. Holiday.
December	2	Monday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
December	23	Monday, through

1958

January	4	Saturday. Christmas holidays.
February	20	Thursday. Last day for filing application for Cutting and Ellis Fellowships.
February	22	Saturday. Washington's Birthday. Holiday.
March	3	Monday. Last day for filing application or renewal of application for all degrees and certificates, except doctoral degrees, to be conferred in June. The privilege of later application may be granted on payment of a late fee.
April	1	Tuesday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
March	31	Monday, through April 5, Saturday. Easter holidays.
May	24	Saturday, through May 31, Saturday. Final examinations.
May	30	Friday. Memorial Day. Holiday.
June	3	Tuesday. Conferring of degrees.

THE
COLUMBIA-PRESBYTERIAN
MEDICAL CENTER
NEW YORK CITY



- | | |
|--|--|
| 1. BABIES HOSPITAL | 7. N.Y. CITY DEPT. OF HEALTH
SCHOOL OF PUBLIC HEALTH AND
ADMINISTRATIVE MEDICINE |
| 2. PRESBYTERIAN HOSPITAL
N.Y. ORTHOPAEDIC HOSPITAL
SLOANE HOSPITAL
SQUIER UROLOGICAL CLINIC | 8. INSTITUTE OF OPHTHALMOLOGY |
| 3. HARKNESS PAVILION | 9. MAXWELL HALL |
| 4. POWER HOUSE | 10. NEUROLOGICAL INSTITUTE |
| 5. COLLEGE OF PHYSICIANS AND SURGEONS | 11. N.Y. STATE PSYCHIATRIC INSTITUTE |
| 6. VANDERBILT CLINIC
SCHOOL OF DENTAL AND ORAL SURGERY | 12. BARD HALL |
| | 13. HARKNESS MEMORIAL HALL |
| | 14. FRANCIS DELAFIELD HOSPITAL, N.Y.C. |
| | 15. PAULINE A. HARTFORD MEMORIAL CHAPEL |

COLUMBIA UNIVERSITY BULLETIN

SERIES FIFTY-EIGHT • NUMBER THIRTY-ONE • AUGUST 2, 1958

*College of
Physicians and Surgeons*

OF THE FACULTY OF MEDICINE

1958-1959



COLUMBIA-PRESBYTERIAN MEDICAL CENTER

630 WEST 168TH STREET • NEW YORK 32 • NEW YORK

COLUMBIA UNIVERSITY BULLETIN * SERIES 58 * NUMBER 31 * AUGUST 2, 1958 * 9,000 COPIES

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View of Bard Hall from Riverside Drive



Columbia Presbyterian Medical Center

FACULTY OF MEDICINE

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JACQUES BARZUN, Ph.D.	<i>Dean of Faculties and Provost of the University</i>
H. HOUSTON MERRITT, M.D.	<i>Acting Vice-President in Charge of Medical Affairs; Acting Dean of the Faculty of Medicine</i>
AURA E. SEVERINGHAUS, A.M., Ph.D., Sc.D., L.H.D.	<i>Associate Dean; Secretary</i>
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ELEANOR LEE, R.N.	<i>Associate Dean (Nursing)</i>
RICHARD J. CROSS, A.B., M.D.	<i>Assistant Dean</i>

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 STANLEY M. BYSSHE
 SIDNEY CARTER
 ERWIN CHARGAFF
 E. GURNEY CLARK
 WILFRED M. COPENHAVER
 ROBERT C. DARLING
 D. ANTHONY D'ESOPO
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 FRANKLIN M. HANGER, JR.
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 YALE KNEELAND, JR.
 LAWRENCE C. KOLB
 JOHN K. LATTIMER
 TIFFANY LAWYER, JR.
 KENNETH M. LEWIS
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 RUSTIN McINTOSH
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 WILLIAM L. NASTUK
 CARL T. NELSON

CARL R. OMAN
 EMANUEL M. PAPPER
 GEORGE A. PERERA
 J. LAWRENCE POOL
 MILTON R. PORTER
 JOHN H. POWERS
 CHARLES A. RAGAN
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VAN DYKE, Associate Dean SEVERINGHAUS, and Assistant Dean CROSS

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FLOOD, V. K. FRANTZ, HANGER, A. R. LAMB, JR., G. A. PERERA, D. SEEGAL, and the Acting
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STINCHFIELD, and the Acting Dean, ex officio

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GEORGE F. CAHILL	Urology
LOUIS CASAMAJOR	Neurology
HANS T. CLARKE	Biochemistry
A. RAYMOND DOCHEZ	Bacteriology
BION R. EAST	Dental Public Health Practice
GOODWIN L. FOSTER	Biochemistry
ROSS GOLDEN	Radiology
MICHAEL HEIDELBERGER	Immunochemistry
JAMES W. JOBLING	Pathology
JOHN D. KERNAN	Otolaryngology
ALBERT R. LAMB	Medicine
MAURICE LENZ	Radiology
ROBERT L. LEVY	Medicine
FRANK L. MELENEY	Surgery
HARRY S. MUSTARD	Public Health Practice
WILLIAM BARCLAY PARSONS	Surgery
WILLARD C. RAPPLEYE	Dean Emeritus and Vice President Emeritus in Charge of Medical Affairs

HENRY ALSOP RILEY	Neurology
ORDYCE B. ST. JOHN	Surgery
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PHILIP E. SMITH	Anatomy
BYRON STOOKEY	Neurological Surgery
ARTHUR PURDY STOUT	Surgery
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JEROME P. WEBSTER	Surgery
ALLEN O. WHIPPLE	Surgery
I. OGDEN WOODRUFF	Medicine
EDWIN G. ZABRISKIE	Neurology

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Professors EDMUND P. FOWLER, JR. (1959) and LAWRENCE C. KOLB (1961)

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AT THE COLLEGE OF PHYSICIANS AND SURGEONS

INEZ E. KLINCK, A.B.	Administrative Assistant to the Dean
BERNIS D. MOSS, JR., M.S.	Business Officer
EILEEN H. DALY	Assistant to the Registrar

THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. In 1945 the medical faculty was made responsible for the educational programs in Medicine, Dental and Oral Surgery, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF DENTAL AND ORAL SURGERY

The School of Dental and Oral Surgery became a part of the Faculty of Medicine on July 1, 1945.

The course in dentistry covers four academic years leading to the degree of Doctor of Dental Surgery. The greater part of the first two years of the curriculum is taken in the fundamental science departments of the College of Physicians and Surgeons.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive and administrative medicine and in community organization for health services of all types.

DEPARTMENT OF NURSING

The establishment in 1937 of the Department of Nursing of the Faculty of Medicine marked another step in the close cooperation between Presbyterian Hospital and Columbia University in the education of personnel for the medical and allied professions. The

Board of Trustees of the Presbyterian Hospital has considered the education of nurses one of its primary responsibilities since 1892, when the School of Nursing was founded under the direction of Anna C. Maxwell.

The basic course in nursing is an integral part of a larger educational program designed not only as a sound preparation for the usual practice of bedside nursing, but also as a foundation for further education in the fields of public health nursing, school and industrial nursing, nursing school administration, and other phases of nursing practice and education.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Proficiency in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 50.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission, should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors in Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 192 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 110 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 168-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 300 beds for the treatment and study of cancer. A program of research and of graduate and undergradu-

ate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,611 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 316 beds for chest diseases under the Columbia division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,380 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains 100 research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 280 patients, including 60 in the Country Home at Far Rockaway.

Institute for the Crippled and Disabled, founded in May, 1917, was the first modern rehabilitation center established in the United States. The program of rehabilitation at the Institute is integrated with the orthopedic, medical, and other professional activities of the Medical Center through the Department of Physical Medicine and Rehabilitation of the University and a corresponding service in Presbyterian Hospital.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of medicine and surgery. It has 112 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 890 beds devoted to the treatment of chronic diseases. The neurological division of 160 beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,002 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for elective undergraduate work in pediatrics and obstetrics. There are 432 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 430 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 567 beds, including 80 beds for infants and children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In

Hospital." It has 192 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately two hundred and fifteen thousand volumes of books and journals, some five thousand pamphlets, and about two thousand lantern slides on the history of medicine. More than twenty-seven hundred periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Dentistry, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing approximately three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The first, second, and third floors are arranged to accommodate women students.

Rates for accommodations range from \$227 to \$500 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal prepaid board plan. The present rate is \$360 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The entering class will register September 11-13, 1958. Application for admission can be made for the next incoming class only, and requests for application forms should be addressed to the Dean. Every application must be accompanied by a check or money order for \$10.00, payable to Columbia University, to cover the cost of processing the application. The fee is not returnable and is not credited toward tuition.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is preferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction.

RESEARCH IN RESIDENCE

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence. During the academic year, the fee is \$75 for any period which is not longer than a winter or spring session. During the summer, between Commencement and registration in September, the fee is \$10.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays, and on Saturday from 9 a.m. to 12 m. The periods set aside for registration in each session are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the University fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of \$3.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

University fee

For all students for one academic year, payable in two installments	\$ 48.00
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Tuition fee

For the full course in medicine for one academic year (or equivalent), payable in two installments	1,100.00
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For students not enrolled for the full course, fees are to be assessed by the Registrar as provided by the University statutes.

Medical school athletic and recreational fee

This fee entitles students to use without charge the athletic and recreational facilities of Bard Hall, the residence for medical students. For all students, per academic year, payable in two installments

10.00

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year

25.00

Application fees

For admission

10.00

For each deficiency or special examination

10.00

For renewal of application for a degree (see below)

1.00

Late fees

For late registration

3.00

For late application for each deficiency or special examination

5.00

For late application, or renewal of application, for a degree

5.00

Rebates

The University fee, the student health and hospital fee, application fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, any unusual amount of breakage will be charged.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for \$50 payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his \$50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to renewal for a fee of \$1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are required to provide themselves with microscopes of a satisfactory type. See page 56 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$1,183	\$1,183
Room	340	204
Board	650	600
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	\$2,873	\$2,437

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 54-56.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of \$10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-second year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of a director.

A faculty board of advisers assists the students and the director in the operation and support of the club program. Every matriculated student in the School of Medicine is automatically a member, and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the session for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

- I. Recommended for advancement
- II. Recommended for readmission to the same class
- III. Recommended neither for advancement nor readmission
 - A. Because of academic failure
 - B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 25 and 26, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Doctor of Dental Surgery, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, occupational therapy, and dental hygiene. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the Schools of Dental and Oral Surgery and of Public Health and Administrative Medicine, of Nursing, and of the Courses for Physical and Occupational Therapists outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about \$3,100.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is normally \$2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about \$3,000.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, A.M., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The normal stipend is \$4,500.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about \$900, the annual income of the fund.

Eckhouse. The Minnie Eckhouse Fellowship in neurological surgery enables the holder to follow the study of neurological surgery after graduation.

Ellis. Two George W. Ellis Fellowships are awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of each fellowship is about \$2,000, the annual income of the fund.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the Executive Officer of the Department of Microbiology. The value of the fellowship is approximately \$2,000.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the Executive Officer of the Department of Biochemistry. The appointment is made from among students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about \$1,800, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a graduate of not more than six years' standing, to enable the recipient to study the dis-

eases of children in this country or abroad. The value of the fellowship is about \$1,500, the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The value of the fellowship is about \$2,500, the annual income of the fund. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about \$1,500, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about \$1,000, the income of the fund which has accrued during four years. It will be awarded next in 1961-1962.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the Executive Officer of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about \$2,500, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Buchman. The Dr. Moses R. Buchman Memorial Scholarship was established by friends of Dr. Buchman in 1957 to provide financial assistance to undergraduate medical students, especially those who are residents of Westchester and who indicate a desire to practice pediatrics.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1908. The Class of 1908 Gift was given on the fiftieth anniversary of the graduation of the class; the use of the income has not yet been determined.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1933. The Class of 1933 Gift was established to create a scholarship room.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory of George Peters and Charles Costello the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of New York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

Rappleye. The Willard Cole Rappleye Scholarship was established at the retirement of Dean Rappleye, the income of the fund to be used for scholarship aid.

St. John-Princeton. The St. John-Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is \$200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the

best thesis on puerperal fever. The value of the prize is about \$70, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Executive Officer of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about \$30.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about \$50, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about \$50, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P&S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about \$260, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about \$200, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about \$260. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one session of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or of the Bursar. Applications for the winter session should be filed by September 1; for the spring session, by December 15.

Students who are legal residents of New York State are eligible for loans through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's office or the Bursar's office.

In memory of John Adams Mahew, Class of 1955, limited funds are available peri-

odically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation to meet their responsibilities to patients and the public.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who are specially qualified by a university level of training in one of the specialized fields of practice. *Only current residents appointed in one of the affiliated hospitals and Fellows registered at Columbia University are eligible for registration for the degree.* Those with proper qualifications who wish to apply for admission to register for the degree may do so on the recommendation of the executive officer of the department concerned.

The fields of graduate study are:

Anesthesiology	Pathology
Dermatology	Pediatrics
Medicine	Physical medicine
Neurology	Plastic surgery
Neurological surgery	Psychiatry
Obstetrics and gynecology	Radiology
Ophthalmology	Surgery
Orthopedic surgery	Urology
Otolaryngology	

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which

require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who may reasonably be regarded as prepared to benefit by the advanced instruction.

Short courses are available at the chest service of Bellevue Hospital, the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hospital for Joint Diseases. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

<i>First Year</i>		HOURS
<i>Anatomy 101FS</i>	Microscopic anatomy	158
<i>Anatomy 102ST</i>	Systematic human anatomy	276
<i>Anatomy 103FS and Public Health 201</i>	Embryology—statistics—genetics	82
<i>Anatomy 106S</i>	The nervous system	160
<i>Biochemistry 101F</i>	Introductory biochemistry	168
<i>Physiology 101TFo</i>	Human physiology	154
<i>Psychiatry 101FST</i>	Introduction to human behavior	30
<i>Pathology</i>		44
TOTAL		1,072

<i>Second Year</i>		HOURS
<i>Anatomy 105FS</i>	Clinical anatomy	20
<i>Medicine 101T</i>	Elementary physical diagnosis	88
<i>Medicine 102S</i>	Elementary clinical pathology	88
<i>Medicine 103T</i>	Introductory medicine	10
<i>Microbiology 101F</i>	General microbiology	140
<i>Microbiology 105F</i>	Infection, immunity, etc.	52
<i>Neurology 101T</i>	Neurological examination	20
<i>Pathology 101FST</i>	General and special pathology	344
<i>Pathology 102S</i>	Neuropathology	33
<i>Pathology 103FS</i>	Medicine-pathology case study	33
<i>Pharmacology 101ST</i>	General and special pharmacology	121
<i>Psychiatry 102S</i>	Psychopathology	10
<i>Public Health 101S</i>	Parasitic diseases	51
<i>Surgery 101S</i>	Introduction to surgery	11
<i>Surgery 102T</i>	Principles of surgery	60
TOTAL		1,081

<i>Third Year</i>		
<i>Dermatology 203-204</i>		34
<i>Medicine 201-202, 203-204, 205-206</i>		447
<i>Neurology 207-208, 209-210</i>		38
<i>Obstetrics and Gynecology 201-202</i>		56
<i>Ophthalmology 201-202, 203-204</i>		42
<i>Orthopedic Surgery 201-202, 203-204</i>		80
<i>Otolaryngology 201-202, 203</i>		40
<i>Pediatrics 201-202, 207-208</i>		208
<i>Psychiatry 203-204</i>		147
<i>Public Health 203-204</i>		76
<i>Radiology 201-202, 206</i>		24
<i>Surgery 201-202, 204-205, 211-212</i>		219
Electives		385
TOTAL		1,796

<i>Fourth Year</i>		
<i>Dermatology 205-206</i>		28
<i>Medicine 205-206, 207-208, 209-210, 216, 221-222, 223-224, 225-226</i>		481
<i>Neurology 202</i>		30
<i>Obstetrics and Gynecology 203-204</i>		280
<i>Orthopedic Surgery 205-206</i>		24
<i>Pediatrics 203-204</i>		140
<i>Pharmacology 202</i>		16
<i>Psychiatry 205</i>		15
<i>Radiology 203-204</i>		16
<i>Surgery 209-210, 213-214, 217-218, 219-220</i>		292
<i>Urology 201-202</i>		36
Electives		280
TOTAL		1,638

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

After the completion of the first year, a student may apply to register for a full year of research in lieu of proceeding with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*acting executive officer*), F. A. Mettler (*Neurology*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, H. O. Elftman, M. R. Murray (*Surgery*), C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professors: E. B. Kaplan, H. H. Shapiro

Assistant Professors: C. A. Ely, D. D. Johnson, M. L. Moss, G. D. Pappas, W. M. Rogers

Associates: E. A. MacDowell, E. A. Manginelli

Instructors: J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, O. Hase, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Smelser, Johnson, Pappas, and assistants.

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, and assistants.

Anatomy 103FS—Statistics-genetics-embryology. First year. An interdepartmental course. 4 pts.

Lectures, demonstrations, and laboratory work correlating statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 105FS—Clinical anatomy. One hour a week for twenty weeks. Second year. 2 pts. Professor Rogers and members of the clinical staffs.

A course of lectures and demonstrations in which the more important phases of anatomy are reviewed by clinicians and discussed in relation to their application in different fields of clinical work.

Anatomy 106ST—The nervous system. First year. An interdepartmental course. 6 pts.

Lectures, demonstrations, and laboratory work correlating the fields of neuroanatomy, neurophysiology, neurology, neurochemistry, and psychiatry.

SUMMER SESSION 1958

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Elftman and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professors: V. Apgar, E. M. Papper (*executive officer*)

Associate Professors: D. A. Holaday, L. C. Mark

Assistant Professors: B. R. Fink, M. J. Frumin, E. C. Hanks, J. Henley, J. Kreiselman,* S. H. Ngai, H. Rackow, H. Schwartz

Associates: L. Brand, R. M. Epstein, R. A. Jacobs, M. M. Kritchman, V. Lauderdale, A. Levy, S. Lynch, F. Moya, E. Salanitro, S. Silverman, C. C. Wycoff

Instructors: I. J. Chessar, R. W. Patterson,* S. N. Steen

Instructor in Pediatrics: L. S. James

At Mary Imogene Bassett Hospital:

Instructor: N. W. Andrew

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*executive officer*), D. Shemin,* W. M. Sperry (*Psychiatry*), H. B. Waelsch (*Psychiatry*)

Associate Professors: M. Karshan (*Dental and Oral Surgery*), S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, D. B. Sprinson, I. B. Wilson (*Neurology*), S. Zamenhof

Assistant Professors: J. A. Behre, M. Eisenberg, P. Feigelson (*Medicine*), H. B. Gillespie, E. Hirschberg (*Medicine*), A. L. Lajtha (*Psychiatry*), I. Mandl (*Microbiology*), H. Meltzer (*Psychiatry*), T. D. Price (*Urology*), H. S. Simms (*Pathology*), B. Weiss (*Psychiatry*)

Associates: G. Alexander (*Psychiatry*), E. Borek, W. Halpert, C. R. Harmison (*Pathology*), P. E. Hochstein (*Medicine*), P. Hoffman (*Medicine*), H. C. Lawler (*Neurology*), A. Linker (*Medicine*), M. E. Lombardo (*Urology*), S. Solomon (*Obstetrics and Gynecology*)

Associate in Medicine: G. B. Phillips

Research Associates: M. Berger (*Psychiatry*), G. Brawerman, G. Cohen (*Medicine*), I. Danishefsky, S. Ehrenpreis (*Neurology*), S. Greer, F. C. G. Hoskin (*Neurology*), A. S. McGavin, C. Pallavicini, A. Rosenberg, V. Ross, H. Shapiro, H. T. Shigeura, I. Sucher, W. Traub, C. E. H. Winestock, P. E. Zimmering

Instructors: A. I. Krasna, S. L. Miller, P. Srinivasan

* On leave.

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)

Assistant Professors: L. L. Abell (*Medicine*), E. H. Mosbach (*Medicine*)

Associate: M. M. Daly (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 111FFo—Correlative clinics in anatomy, biochemistry, and physiology. First year. Professor Loeb (*from Medicine*) in charge. See *Anatomy 114FFo*.

Biochemistry 211-212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215-216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Energetics and kinetics of enzyme action. Two hours. 3 pts. Professor Wilson and staff.

The application of the principles of thermodynamics and kinetics to problems of enzyme action.

Biochemistry 231-232—The biochemistry of the complex cellular constituents. 3 pts. The staff. W. 1-3.

Prerequisite: Elementary biochemistry and organic chemistry, and the permission of the department.

This course will treat one of the following topics at an advanced level for an entire semester: (*a*) the biochemistry of the proteins; (*b*) the biochemistry of the nucleic acids; (*c*) the biochemistry of the polysaccharides. In each case the chemistry, biogenesis, and biological action of the compounds will be discussed.

Biochemistry 301-302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

SCHOOL OF DENTAL AND ORAL SURGERY

The bulletin of the School of Dental and Oral Surgery, describing the content of the course leading to a Doctor of Dental Surgery (D.D.S.) degree, and the bulletin of Post-

graduate Courses for Dentists may be obtained from the Office of the Associate Dean, School of Dental and Oral Surgery, 630 West 168th Street, New York 32, N.Y.

DERMATOLOGY

Professor: C. T. Nelson (*executive officer*)

Clinical Professor: P. Gross

Associate Professor of Clinical Dermatology: B. M. Kesten

Associate Clinical Professors: L. P. Barker, G. F. Machacek, J. L. Miller

Assistant Professor: M. Silva

Assistant Clinical Professors: H. O. Curth, A. N. Domonkos, D. Moon-Adams, T. Rosenthal

Associates: W. Curth, F. P. Lowenfish

Research Associate: J. H. Hill

Instructors: B. J. Chester, B. Dobias, R. M. Montgomery, C. F. Post, J. E. Ridgway, L. Schweich, M. H. Slatkin, M. B. Sloane

Assistants: M. Brodey, J. T. Hearin, S. L. Sanders

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203-204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates. At Vanderbilt Clinic.

Dermatology 205-206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Dr. Chester, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Six hours per week for twelve weeks. 3 pts. Professor Silva.

Hours to be arranged.

Dermatology 207-208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219-220—Histopathology of the skin. Professor Machacek.

Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: R. F. Loeb (*executive officer*)

Professors: S. E. Bradley, A. Gellhorn (*Delafield Hospital*), F. M. Hanger, Jr., Y. Kneeland, Jr., G. A. Perera, J. V. Taggart

Professor of Biochemistry: K. Meyer

Professors of Clinical Medicine: C. Ragan, J. C. Turner

Clinical Professors: F. R. Bailey, A. L. Barach, H. Southworth

Clinical Professor of Psychiatry: G. E. Daniels

Associate Professors: A. P. Fishman, R. Wegria

Associate Professors of Clinical Medicine: C. A. Flood, J. W. Jailer (*Obstetrics and Gynecology*), S. C. Werner

Associate Clinical Professors: S. W. Lambert,* W. B. Sherman

Associate Professors of Microbiology: C. Howe, C. Morgan

Assistant Professors: R. J. Cross, A. I. Knowlton, D. L. Larson, P. A. Marks, E. F. Osserman, D. Schachter, D. F. Tapley

Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg

Assistant Professors of Clinical Medicine: H. Aranow, J. M. Baldwin, Jr., S. W. Cosgriff, F. E. Demartini, A. R. Lamb, Jr., J. H. Laragh, K. L. Pines, H. M. Ranney

Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. J. Dalton, R. B. Duane, Jr., C. D. Dunham, S. C. Fisk, M. Goldenberg, M. J. Lepore, P. C. Lloyd, T. B. Russell,* P. B. Sheldon, H. B. Wilcox, Jr.

Associates: G. P. Bradley, A. W. Grokoest, H. O. Heinemann, H. H. Holmes, E. Leifer, E. N. Loeb, R. B. McKittrick, G. W. Melcher, I. Mufson, G. B. Phillips (*Biochemistry*), C. H. Plimpton,* G. M. Turino, H. O. Wheeler

Associates in Biochemistry: P. E. Hochstein, P. Hoffman, A. Linker

Research Associate: H. D. Grossfeld

Research Associate in Biochemistry: G. Cohen

Instructors: S. F. Alexander, C. Alston, A. T. Baker, G. J. Beck, D. N. Brown, R. M. Carey, N. P. Christy, H. P. Colmore, C. Gerbi, G. C. Hennig, G. A. Hyman, R. A. Kritzler, R. W. Lamont-Havers, K. A. McClane, G. H. McCormack, Jr., W. M. Manger, J. A. L. Mathers, E. Middleton, Jr., R. Muller, H. W. Neuberg, A. Sahagian-Edwards, F. H. Shillito, R. Stock, T. L. Tyson, J. E. Ulmann, J. F. Watson, C. R. Wise

Assistants: H. M. Anderson, J. W. Barry, J. T. Beaty, E. H. Bergofsky, M. R. Blumenthal, A. E. Brewer, N. J. Conan, Jr., C. Cooke,* J. A. Coss, Jr., J. Van B. Dean, H. W. Doyle, S. Dvoskin, D. Estes, S. Fink, W. H. Franklin, A. Gibson, C. R. Hulse, P. K. Johnson, D. M. Kanter, M. L. Marinovich, J. Nakano, R. Noble, T. Richter, D. H. Smith, A. I. Snyder, C. J. Tyson, Jr., S. Ulick, C. A. Vicens, J. A. Wood, B. M. Wright, H. Zekert

At Bellevue Hospital:

Samuel W. Lambert Professor: D. W. Richards

Professor: A. F. Cournand

Clinical Professor: M. Dinnerstein

Associate Professors: J. M. Jones, J. H. McClement

Associate Clinical Professors: C. R. Gross, H. McL. Riggins, K. J. Thomson

Assistant Professors: W. A. Briscoe, H. W. Fritts

Assistant Professors of Clinical Medicine: M. I. Ferrer, R. Harvey

Assistant Clinical Professors: J. L. Leland, W. H. Stearns

Associates: O. S. Baum, M. E. Campbell, H. H. Coppersmith, L. H. Hellstrom, H. M.

Hicks, A. Hoff, F. D. Rossomondo, P. Wermer, C. H. Whitney

Associate in Biochemistry: A. M. Briscoe

Instructors: E. Alpert, R. F. Alsop, E. Bauman, H. S. Collins, R. J. Conroy, W. R.

* On leave.

Cunnick, Jr., A. Davis, B. B. Eichler, H. Fong, B. B. Garthwaite, B. J. Handler, H. Kuschner, F. S. Lansdown, J. V. Lichtenstein, H. Perrone, H. G. Shaffeld, W. J. Sheils, D. G. Simpson, M. B. Smith, A. M. Tunick, L. Warshaw
Assistants: S. C. Alexander, L. L. Davis, L. Fishel, D. L. Hartman, S. N. Heller, A. Minzter, C. R. Ream, C. S. Yongue
Lecturers: M. Kuschner, W. E. Loring

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston
Assistant Clinical Professors: N. S. Brown, G. Taylor
Associate: W. H. Button, Jr.
Instructors: G. A. Covo, I. A. Jaffe
Assistant: A. C. Santy

At Goldwater Memorial Hospital:

Professor: D. Seegal
Professor of Biochemistry: F. E. Kendall
Clinical Professor: A. J. Patek, Jr.
Associate Professors: Q. B. Deming, A. R. Wertheim
Associate Clinical Professors: H. Bickerman, A. Steiner
Assistant Professor: D. Rudman
Assistant Professors of Biochemistry: L. L. Abell, E. H. Mosbach
Associates: H. Colcher, A. W. Feinberg, H. Lax
Associate in Biochemistry: M. M. Daly
Instructor: L. A. Scarrone
Assistants: G. E. Brown, J. G. Edreira, A. Sakamoto, E. Schmatolla

At Mt. Sinai Hospital:

Professor: A. B. Gutman
Associate Clinical Professor: S. Silver
Assistant Clinical Professors: D. Adlersberg, W. M. Hitzig, M. Mendlowitz, C. B. Rabin, L. R. Wasserman, T. F. Yu
Associate: H. Horn
Lecturers: S. Dack, I. E. Gerber, H. L. Jaffe, F. H. King, F. D. Zeman

At Montefiore Hospital:

Clinical Professors: R. G. Bloch, L. Leiter
Associate Clinical Professors: S. P. Schwartz, L. E. Siltzbach
Assistant Clinical Professors: S. Biloon, H. Gross, A. Jezer, S. Melamed, J. B. Schwedel, I. D. Stein, B. Weingarten
Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. G. W. Escher, M. Friedenson, E. Goldberger, J. Harkavy, B. E. Jacobson, D. Laszlo, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, I. L. Rubin, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, R. E. Weston, D. Young

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III
Associate Clinical Professors: J. W. Ferrebee, E. D. Thomas

Assistant Clinical Professor: F. F. Harrison

Associate in Biochemistry: T. Peters, Jr.

Instructors: K. Fremont-Smith, J. C. Mithoefer, W. H. Mook, E. D. Rames

At St. Luke's Hospital:

Associate Clinical Professor: G. J. Coffin

Assistant Clinical Professors: J. G. Hilton, O. R. Jones, W. J. Pyles

Associates: C. G. Adsit, A. L. L. Bell, J. H. Keating, Jr., F. J. Schilling

Instructors: R. Case, J. Feltman, R. P. Keating

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Turner and associates.

This course consists of instruction in the technique of blood-counting, etc., and systematic instruction in the various chemical and microscopical methods.

Medicine 103T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Loeb.

Medicine 201-202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Perera in charge.

Medicine 203-204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205-206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Cross and associates.

Medicine 207-208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209-210*. Two months. Fourth year. Professor Lamb in charge.

Medicine 209-210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems with a review of the pertinent pharmacology. See *Pharmacology 202*.

Medicine 216—Forensic medicine and medical jurisprudence. Sixteen lectures. Fourth year. Mr. Werne (*from Public Health*).

Medicine 221-222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Richards and associates.

Medicine 223-224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225-226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Richards and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227-228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

- A. *Diabetes*. M. W. F. Floor 2. Limited to six students each morning. Professor Pines.
- B. *Thyroid*. F. Floor 10. Limited to six students. Professors Werner and Aranow.
- C. *Nephritis and hypertension*. Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

- D. *Allergy*. M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.
- E. *Cardiac*. F. Floor 10. Professor M. I. Ferrer.
- F. *Arthritis*. W. F. Floor 10. Limited to four students daily. Professor Ragan.
- G. *Combined endocrine*. Tu. Floor 3. Limited to six students. Professor Werner and associates.
- H. *Gastrointestinal*. M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229-230—Differential diagnosis. Fourth year. Professor Hanger.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231-232—Research in medicine. Under the direction of Professor Loeb.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235-236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

ELECTIVE COURSES IN MEDICINE

Medicine 237—Elective course in cardiorespiratory physiology. Fifteen lectures, all classes. Professors Cournand and Richards.

Medicine 239—Elective course in clinical biochemistry. Fall of even-numbered years. Fifteen lectures, all classes. Professor Taggart.

MICROBIOLOGY

John E. Borne Professor of Medical and Surgical Research: H. M. Rose (*executive officer*)

Professor: E. A. Kabat (*Neurology*)

Professor of Bacteriology: C. W. Jungeblut

Associate Professors: S. M. Beiser, G. C. Godman, S. P. Halbert (*Ophthalmology*), C. Howe (*Medicine*), C. Morgan (*Medicine*), B. C. Seegal

Assistant Professors: B. F. Erlanger, S. W. Tanenbaum

Assistant Professor of Biochemistry: I. Mandl

Associates: P. Breitenfeld, S. A. Ellison, A. W. Knox, E. Y. Lasfargues, D. Locatcher-Khorazo (*Ophthalmology*), G. Schiffman (*Neurology*)

Research Associates: A. D. Deitch, I. M. Mountain

Assistants: E. W. Bassett, K. C. Hsu

Lecturer: M. Holden

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.

This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Five hours lecture and demonstrations. Second year. 3 pts. Members of the staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. Five hours per week for twelve weeks. 3 pts. Hours to be arranged.

Microbiology 251FST—Research in problems of immunology and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (*executive officer*)

Professor of Clinical Neurological Surgery: J. E. Scarff

Associate Professor: D. P. Purpura

Associate Professor of Clinical Neurological Surgery: L. A. Mount

Associate Clinical Professor: F. Cramer

Assistant Professor: J. B. Campbell

Assistant Professors of Clinical Neurological Surgery: J. Ransohoff, E. B. Schlesinger

Associate: T. J. Bridges

Research Associate: J. Husby

Instructor: J. W. Correll

Assistants: S. A. Jacobson, C. W. Simpson

NEUROLOGY

Professor: H. H. Merritt (*executive officer*)

Professor of Neuropathology: A. Wolf

Professor of Anatomy: F. A. Mettler

Professor of Biochemistry: D. Nachmansohn

Professor of Microbiology: E. A. Kabat

Associate Professors: H. Grundfest, P. F. A. Hoefer

Associate Professor of Clinical Neurology: S. Carter, D. Sciarra, C. T. Vicale, M. O. Yahr

Associate Professor of Biochemistry: I. B. Wilson

Associate Professor of Neuropathology: D. Cowen

Assistant Professors: R. A. Fishman, E. S. Goldensohn, J. F. Hammill, L. P. Rowland

Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, E. Herz, R. J. Masselink, J. Moldaver

Assistant Professor of Neuropathology: I. H. Feigin

Assistant Clinical Professors: R. M. Brickner, A. M. Frantz, C. C. Hare, M. Silbermann, H. G. Weitzen.

Associates: F. Ansanelli, S. M. Cohen, K. Constable, J. F. Culleton, S. M. Dillenberg, L. J. Doshay, A. Gallinek, S. Lesse, C. G. McKendree, R. Pietri, S. F. Thomas, F. T. Zimmerman

Associate in Biochemistry: H. C. Lawler

Associate in Microbiology: G. Shiffman

Associate in Neuropathology: S. M. Aronson

Associate in Psychiatry: L. R. Hewson

Research Associates: M. V. Bennett, J. Epstein, L. Epstein, S. Ginsburg, H. Hartford, J. R. Reilly, E. H. J. Schoffeniels, A. Weber

Research Associates in Biochemistry: S. Ehrenpreis, F. C. G. Hoskin

Instructors: J. L. O'Brien, G. F. Osler, H. B. Thomson, Jr.

Assistants: W-D. Dettbarn, R. R. Engisch, L. H. Gaelen, R. S. Graham, F. P. Iorio, F. L. Orioli, S. G. Penny, E. D. Weitzman

Research Assistants: B. B. Burgemeister, L. Zablow

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.

Associate Clinical Professors: S. Elpern, A. P. Friedman, M. J. Madonick

Assistant Clinical Professors: S. Solomon, F. D. Stern

Associates: R. B. Miller, J. H. Scharf

Instructors: B. August, K. D. Barron, E. L. Demuth, R. J. Greenberg, K. Strully

At Mt. Sinai Hospital:

Clinical Professor: M. Bender

Lecturer: H. Strauss

At Rockland State Hospital:

Assistant: J. C. Saunders

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, anatomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for twenty weeks. Second year. Professors Merritt, and Vicale.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicale.

Neurology 207-208—Neurology: examination of the patient and interpretation of findings. Fifteen hours a week for two weeks. Third year. Members of staffs.

At Neurological Institute and Montefiore Hospital.

Neurology 209-210—Neurology: the diseases of the nervous system. Lectures and demonstrations two hours a week for seven weeks. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241-242—Ward clinical clerkships. Five mornings a week, 9-12; five afternoons a week, 2-5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*executive officer*)

Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo

Clinical Professor: V. C. Damon

Associate Professors: A. A. Plentl, G. J. Vosburgh

Associate Professor of Biochemistry: S. Lieberman

Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer

Associate Professor of Clinical Medicine: J. W. Jailer

Associate Clinical Professors: W. V. Cavanagh, E. W. Munnell

Assistant Professor: A. L. Southam

Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, L. B. Shettles, H. Speert, A. J. B. Tillman

Assistant Clinical Professor: J. R. Montgomery

Associates: A. N. Fenton, R. E. Hall, M. D. Laird, D. B. Moore, J. B. Rearden, H. M. M. Tovell

Associate in Biochemistry: S. Solomon

Associate in Psychiatry: L. Gidro-Frank

Research Associates: S. Bader, S. Burstein, H. deRoeth, H. Guthwin, M. E. Long, L. L. Phillips

Instructors: E. A. Friedman, D. J. Grandin, M. J. Gray

Assistants: G. G. Herman, T. J. Parks

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Mt. Sinai Hospital:

Clinical Professor: A. F. Guttmacher

At Woman's Hospital:

Clinical Professor: C. T. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 201-202—Theory and practice of obstetrics and gynecology. Fifty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complications of diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203-204—Fourth year: practical work in obstetrics and gynecology.

The practical work in this obstetrics and gynecology class is divided into six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.

2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.

3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Professor: J. H. Dunnington (*executive officer*)

Professor of Anatomy: G. K. Smelser

Professor of Biochemistry: Z. Dische

Professor of Clinical Ophthalmology: G. M. Bruce

Clinical Professors: A. B. Reese, M. C. Wheeler

Associate Professor of Microbiology: S. P. Halbert

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer (*Radiology*)

Associate Clinical Professors: W. S. Knighton, C. A. Perera

Assistant Clinical Professors: R. N. Berke, J. A. C. Wadsworth

Assistant Professor of Anatomy: G. A. Pappas

Associates: H. D. H. Brown, F. D. Carroll, G. Clark, R. M. Day, J. V. Flack, P.

Knapp, G. R. Merriam, F. Payne, E. F. Regan

Associate in Microbiology: D. Locatcher-Khorazo

Research Associates: O. Lowenstein, V. Weimar

Instructors: E. G. Bethke, A. deRoeth, Jr., A. W. Forrest, I. S. Jones, V. Ozanics, M. C. Rittler

Assistants: R. P. Burns, C. J. Campbell, R. C. Collins, A. Donn, F. H. Farrant, I.

Loewenfeld, J. W. McTigue

Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201-202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203-204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*executive officer*)

Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin

Clinical Professor: L. A. Lantzounis

Associate Professors of Clinical Orthopedic Surgery: C. T. Ryder, F. M. Smith

Associate Clinical Professor: M. B. Watkins

Assistant Professors of Clinical Orthopedic Surgery: F. S. Craig, S. R. Gaston, C. S. Neer II

Assistant Clinical Professors: E. C. Bragg, R. E. Carroll

Associates: G. B. Ambrose, A. Garcia, D. K. McElroy

Instructors: C. A. L. Bassett, J. W. Fielding, K. C. Francis, A. Papas

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201-202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield.

Orthopedic Surgery 203-204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks as part of *Surgery 204-205*. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205-206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207-208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery participates in the correlative clinics in the first year, with a discussion of fractures, and also presents a series of lectures in connection with *Surgery 102T* and *Anatomy 105FS* in the second year.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*executive officer*)

Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley, DeG. Woodman

Associate Professor of Clinical Otolaryngology: J. Waltner

Assistant Clinical Professors: H. S. Friedman, R. M. Hui, B. Marquit

Associate: E. B. Bilchick

Instructors: M. Basek, P. Lindenberg, S. Whitfield

Lecturers: J. Eisenson, T. Fay

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman

Associate Clinical Professors: I. B. Goldman, S. Rosen, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201-202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, Waltner, and Woodman, Dr. Basek, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Fowler, Woodman, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225-226—Research in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226-227—Ward clinical clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Basek, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: H. P. Smith (*executive officer*)

Professor: D. H. Andersen (*Pediatrics*)

Professor of Neuropathology: A. Wolf

Associate Professors: C. Z. Garber, H. D. Kesten, F. V. Lucas, D. M. Spain, E. E. Sproul, W. B. Stewart

Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)

Associate Professor of Oral Pathology: L. Cahn (*Dental and Oral Surgery*)

Assistant Professors: D. W. Benninghoff, W. A. Blanc, D. E. Brown, F. P. Shepard, Jr., G. P. Vennart

Assistant Professor of Biochemistry: H. S. Simms

Assistant Professors of Neuropathology: G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*)

Assistant Professor of Oral Pathology: M. Lunin

Associates: B. N. Berg, R. E. Fiol-Rodrigues

Associate in Biochemistry: C. R. Harmison

Associate in Neuropathology: L. M. Geller

Research Associates: S. Fiala, H. Kaunitz, L. Zucker

Instructor: E. V. Perrin

Instructor in Neuropathology: J. H. Sung

Assistants: D. N. Brown, D. H. Cowan, M. Cushman, J. DiRe, J. G. Gorman, P. B. Radelat, H. J. VanPeenen III

Lecturer: T. F. Zucker

Lecturer in Medical Illustrating: A. Feinberg

At Bellevue Hospital:

Research Associate: J. B. Cromie

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn

Instructor: C. A. Ashley

At Montefiore Hospital:

Professor: H. M. Zimmerman

Associate Professor: T. H. Spaet

Instructors: J. I. Berkman, R. D. Terry

At Mt. Sinai Hospital:

Professor: H. Popper

Associate Professor: S. Otani

Assistant Professor: L. Strauss

Assistant Professor of Neuropathology: L. Krainer

At Roosevelt Hospital:

Assistant Professor: B. Kalfayan

At St. Luke's Hospital:

Assistant Professor: C. F. Begg

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. Second year. 14 pts. Professors Lucas, Smith, Stewart, and Vennart, and staff.

A study of the important disease processes by means of demonstrations, autopsies, conferences, case study, and by the use of fresh specimens and museum specimens, along with a very complete series of histological specimens.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

Pathology 103FS—Medicine-pathology case study. One hour a week, first and second trimesters. Second year. Members of the Departments of Medicine and Pathology.

This course consists of presentation of patients illustrating diseases studied in *Pathology 101FST* with a discussion of the etiology, lesions, and clinical findings.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251-252—Research in pathology. Credit to be arranged.

Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: R. McIntosh (*executive officer*)

Professor: H. E. Alexander

Professor of Pathology: D. H. Andersen

Associate Professor: C. M. Riley

Clinical Professor: C. D. May

Associate Professor of Clinical Pediatrics: W. A. Silverman

Associate Clinical Professors: H. S. Altman, S. Blumenthal, J. M. Brush, D. S. Damosch, J. A. Wolff, C. L. Wood

Assistant Professors: P. A. di Sant'Agnese, M. M. Grumbach, R. C. Harris,* G. W. Mellin

Assistant Clinical Professors: W. A. Bauman, R. E. Moloshok, M. Singer

Associates: L. A. Boker, R. W. Culbert, S. P. Griffiths, W. R. Kessler, K. Sprunt

Research Associates: G. Koch, G. Leidy

Instructors: J. B. Ahouse, R. G. Ames, H. Anfanger, S. Blatman, L. S. James (*Anesthesiology*), J. H. Maroney, R. M. Mickey, D. R. Reed, M. R. Richards, M. H. Samuels, P. R. Scaglione, P. S. Strong, D. A. Wilcox, L. F. V. Wilking, Jr., A. G. Wilson

Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., L. J. Cassard, W. M. Chemris, S. J. Cohen, J. A. Costa, C. R. Denning, R. U. Donovan, J. Ducharme, L. G. M. Fox, O. L. Frick, M. J. Gates, B. German, H. Grossman, J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Honan, P. Hudson, M. H. Jacobs, R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, S. A. Mayer, D. J. Melia, R. B. Mellins, K. M. Metcalf, W. L. Mitchell, H. E. Poch, M. H. Rachelson, R. C. Richards, A. P. Rosen, A. L. Sitarz, W. H. Smith, W. R. Stankewick, D. Stiles, E. Ufford, R. West, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: T. C. Goodwin

Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes

Associate Clinical Professor: S. Karelitz

Instructors: A. L. Florman, D. Gribetz, A. Y. Sweet

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201-202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203-204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Riley and staff.

At Babies Hospital.

Student and hospital resident work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207-208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

* On leave.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*executive officer*)
Professor: S.-C. Wang
Associate Professor: W. H. Sawyer
Assistant Professors: H. J. Bartelstone, F. G. Hofmann
Lecturer: J. A. Schneider

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101ST—General and special pharmacology. One hour lecture or conference, second trimester; four hours lecture or conference and six hours laboratory, third trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year. Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See Medicine 209-210.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229-230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Professor: R. C. Darling (*executive officer*)
Professor of Physical Medicine: W. B. Snow
Associate Clinical Professor: M. Hoberman
Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch
Research Associate: J. A. Downey
Instructors: L. Tsu Pai, S.-J. Yue
Assistant Professor and Director of Training for Physical Therapists: M. E. Callahan
Assistant Professor and Director of Training for Occupational Therapists: M. L. Francis

Assistant Professor of Occupational Therapy: M. Abbott
Associate in Occupational Therapy: D. H. Ericson
Instructor and Associate Director of Training for Physical Therapists: R. Dickinson
Instructor and Associate Director of Training for Occupational Therapists: M. E. Schnebly

Associates in Physical Therapy: M. S. Cover, K. T. San Julian
Instructors in Physical Therapy: S. Brunnstrom, G. P. Jessup, Jr., B. Talmud

Instructors in Occupational Therapy: A. A. Deutsch, J. P. Robinault, E. A. Scully, A. R. Trei, T. L. Wellerson

Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

At Mt. Sinai Hospital:

Assistant Clinical Professors: W. Bierman, L. H. Wisham

At Manhattan V. A. Hospital:

Associate: M. J. Lota

Instructor: L-C. YenChen

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. I. Gregersen (*executive officer*)

Professor: W. S. Root

Associate Professors: L. T. Cizek, W. L. Nastuk, W. W. Walcott

Assistant Professors: S. Chien, W. R. Loewenstein

Instructors: R. J. Dellenback, L. Levine, G. Muelheims, M. Nocenti, B. A. Olson, R. A. Rawson, G. R. Rowley

At Mt. Sinai Hospital:

Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

Physiology 103Fo—Correlative clinic. First year.

See Anatomy 114FFo.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.

Tu. Th. 3-5. Laboratory by arrangement.

History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measuring cardiac output, blood volume, etc.

Physiology 251-252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

PSYCHIATRY

Professors: F. J. Kallman (*Genetics*), L. C. Kolb (*executive officer*), W. S. Langford, I. H. MacKinnon

Professors of Clinical Psychiatry: P. H. Hoch, W. A. Horwitz

Professors of Biochemistry: W. M. Sperry, H. Waelsch

Professor of Medical Psychology: J. Zubin (*Biometrics*)

Professor of Psychology: C. Landis

Clinical Professors: G. E. Daniels (*Medicine*), R. B. McGraw*

Associate Professor of Clinical Psychiatry: P. Polatin

Associate Professor of Medical Psychiatry: W. N. Thetford

Associate Professor of Neuropathology: L. Roizin

Associate Clinical Professors: N. Ackerman, V. Bernard, H. Bruch, G. Goldman, E. M. Gruenberg (*Epidemiology*), A. Karush,* K. Kelley, H. R. Klein, L. Ovesey

Assistant Professor of Medical Psychology: A. C. Carr

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: B. H. Balser, J. Cattell, D. Dunton, B. Easser, W. Goldfarb, G. A. Jervis, V. Moses, R. Moulton, B. L. Pacella, R. Senescu, R. Sobel, J. Weber

Associates: G. Baker, W. A. Brooks, R. D. Craig, L. Gidro-Frank, R. Gilder, Jr., M. Glusman, A. Goldfarb, S. Goodman, H. L. Hall, L. R. Hewson (*Neurology*), C. Hogan, S. Karlen, J. P. Lampert, J. Lubart, R. MacKinnon, S. Malitz, M. Naftalin, B. A. Pasquarelli, S. C. Post, J. Rioch, A. A. Rosner, E. Savitsky, A. Schick, W. A. Schonfeld, M. Schreiber, D. Shapiro, E. S. Tauber, R. Taylor, M. P. Torre (*Public Health*), R. J. Weiss, E. Welsch, V. Wilking

Associate in Biochemistry: G. Alexander

Research Associates: G. B. Baroff, B. P. Dohrenwend, A. Falek, G. Gold, M. Gold, L. F. Jarvik, L. B. Kalinowsky, L. M. Kopeloff, B. Kohlsaat, J. D. Rainer, L. Ross, J. Rutschmann, J. Schachter, K. Sterling

Research Associate in Biochemistry: M. Berger

Instructors: M. J. Aronson, A. B. Ballard, S. Berl, J. P. Briggs, R. J. Campbell, R. J. Carotenuto, J. Cederquist, H. Chartock, L. Cobliner, L. Coleman, J. A. Cook, A. Cooper, Z. DeFries, H. D. DeWitt, D. J. Dillon, D. B. Douglas, S. Dunaif, R. W. Evans, M. Farnham, O. Frankel, S. Furst, W. Gaylin, I. Harrison, R. Hartogs, W. Hochstetter, E. Huff, M. J. D. Jameson, H. McHugh, R. J. Mearin,* T. Meltzer, A. Messer, J. O'Connor, J. F. Oliven, A. H. Polatin, H. Potter, K. F. Prescott, P. E. Ryberg, L. Scheinman, J. Sheps, D. E. Sobel, W. Stewart, S. Stirt, M. O. Strahl, C. D. Tait, R. S. Ward, W. R. Watson, J. Weinless, B. Wilkens

Assistants: K. Z. Altshuler, A. R. Kaplan, A. M. Mesnikoff, D. Sank, J. S. Schachter, M. H. Wodin

Lecturers: H. G. Birch, H. Brill, H. Davidson, K. Goldstein, A. Kardiner, L. S. Kubie, S. R. Lesser, D. Levy, J. A. Millet, S. Rado, H. B. Richardson

At Creedmoor State Hospital:

Assistant Clinical Professor: J. R. Whittier

At Manhattan State Hospital:

Assistant Clinical Professor: N. E. Stein

Instructors: H. C. B. Denber, I. Kesselbrenner

* On leave.

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman

Associate Clinical Professor: H. I. Weinstock

Instructors: L. Linn, B. C. Meyer

Lecturers: C. Fisher, P. Goolker

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline

Research Associate: L. P. Carini

Research Assistants: Y. Taketomo, P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton

At the Institute for the Crippled and Disabled:

Instructors: M. Z. Fuchs, L. A. Gelb, A. B. Szalita-Pemow

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Twenty-two one-hour lectures and demonstrations concerned with the genetic, family, and cultural processes underlying healthy behavior, with the nature of anxiety, with the psychological methods of adaptation to anxiety, and with processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year. Professors Kolb, Bruch, and Dunton; Dr. Brooks.

Psychiatry 102S—Psychopathology. Eleven one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professors Carr, MacKinnon, Thetford, and Weiss, and members of the faculty.

Psychiatry 203-204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Horwitz, Langford, McGraw, MacKinnon, Polatin, Senescu, and Stein, and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures and demonstrations. One and one-half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219-220—Psychometric methods. Forenoons, twice a week. Professors Carr and Thetford.

Practical exercises in mental measurements. Limited to two students.

Psychiatry 221-222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

ELECTIVE GRADUATE COURSE IN PSYCHIATRY

Psychiatry 223—Female and child psychiatry. Full time, September to June. Professors Kolb and MacKinnon, and staff. Fee: \$800.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

(Curriculum taught by the School of Public Health and Administrative Medicine)

Public Health Practice:

Joseph R. DeLamar Professor: W. C. Spring, Jr.

Associate Professor: M. W. Barnard

Adjunct Associate Professors: W. R. Brumfield, H. E. Hilleboe, M. S. Ingalls, G. James

Adjunct Associate Professor of Dental Public Health Practice: A. Bushel

Assistant Professor: A. J. Beckmann

Adjunct Assistant Professors: M. Antell, R. E. Rothermel

Medical Care Administration:

Joseph R. DeLamar Professor of Administrative Medicine: R. E. Trussell (*executive officer*)

Visiting Professor of Medical Sociology: E. A. Suchman

Associate Professors of Administrative Medicine: C. C. Clay, J. Elinson

Adjunct Associate Professors of Administrative Medicine: O. W. Anderson, M. Cherkasky

Adjunct Associate Professor of Hospital Administration: B. C. MacLean

Assistant Professors of Administrative Medicine: H. Baumgarten, Jr., M. P. Shorney, F. W. van Dyke

Adjunct Assistant Professors of Administrative Medicine: E. M. Bluestone, G. A. Silver

Research Associates in Administrative Medicine: J. E. Bryan, R. B. Heiser, M. C. Maloney, C. F. Muller, J. J. Williams

Assistants in Administrative Medicine: H. Alksne, V. M. Brown, M. N. Glasser, J. K. Lane, M. J. Robertson, J. G. Sachar

Assistant in Hospital Administration: G. F. Billington

Administrative Assistant: L. Gerold

Public Health Education:

Professor: G. Rosen

Adjunct Assistant Professor: I. S. Shapiro

Biostatistics:

Professor: J. W. Fertig

Assistant Professors: A. P. Berger, G. L. Saiger

Research Associate: N. W. Chilton

Instructor: P. B. Michelsen

Community Psychiatry:

Associate Clinical Professors of Psychiatry: V. W. Bernard, E. M. Gruenberg

Associate in Psychiatry: M. P. Torre

Epidemiology:

Professor: E. G. Clark

Adjunct Associate Professor: S. Frant

Assistant Professors: A. C. Gelman, M. D. Schweitzer

Assistant: A. B. Ritterband

Nutrition:

Professor: W. H. Sebrell, Jr.

Occupational Medicine:

Professor: L. J. Goldwater

Adjunct Associate Professor: I. R. Tabershaw

Adjunct Assistant Professor: M. Kleinfeld

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown

Associate Professor of Medical Entomology: R. W. Williams

Adjunct Assistant Professor: H. B. Shookhoff

Assistant Professor of Parasitology: K. L. Hussey

Instructors: K. G. Dwork, M. M. Sterman

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, L. Baumgartner, H. J. Becker, A. J. Binkert, G. Bugbee, H. R. Cohen, E. de Armas, P. M. Densen, W. R. Donovan, D. J. Doran, C. L. Erhardt, R. T. Fisher, R. S. Goodhart, M. Greenberg, A. E. Grosso, E. Hayt, H. H. Hughes, M. A. Jacobs, N. H. Jolliffe, R. N. Kerst, J. H. Kinnaman, G. W. Larimore, S. S. Lifson, J. Masur, B. F. Mattison, J. M. May, E. A. Mosso, B. B. Palmer, M. J. Plishner, M. Radom, J. W. G. Rehn, C. G. Roswell, A. J. J. Rourke, L. Schneider, M. E. Segal, R. F. Sikes, J. E. Silson, R. P. Sloan, J. E. Snyder, D. K. Tuller, S. B. Weinberg, B. Werne, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 201—Statistical analysis of medical and public health data. One hour a week for ten weeks. First year. Professor Fertig.

Public Health 101S—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203-204—Preventive and administrative medicine. Six hours a week; lectures, seminars, and field work in public health and medical care for eleven weeks. Third year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology,

nutrition, occupational medicine, parasitology, etc. Fourth-year students interested in pursuing further studies in preventive and administrative medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

RADIOLOGY

Professors: J. Caffey, G. Failla (*Physics*), H. W. Jacox, E. H. Quimby (*Physics*), W. B. Seaman (*executive officer*)

Associate Professors: R. J. Guttmann, M. M. Kligerman, H. H. Rossi (*Physics*), R. Rugh (*Biology*), J. M. Taveras, J. S. Wells

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer

Assistant Professors: A. L. Bachman, L. C. Doubleday, K. Ellis, G. S. Schwarz, N. duV. Tapley

Associates: C. B. Braestrup, L. Rottenberg, R. Schlaeger

Instructors: M. Alpert, M. H. Becker, A. D. Crosett, Jr., F. M. Cummins, W. J. Esposito, R. J. Hochstim, J. L. Jarvis, D. W. Johnson, S. H. March, J. M. Moynahan, R. S. Yalow

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Hospital for Joint Diseases:

Associate: M. M. Pomeranz

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf

Instructor: S. M. Silverstone

At Montefiore Hospital:

Associate Clinical Professor: S. Fineman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201-202—Diagnostic radiology. One hour a week for twenty-two weeks. Third year. Professors Kligerman, Doubleday, and Ellis, and Drs. Alpert, Becker, Crosett, Cummins, Hochstim, Jarvis, Johnson, Marsh, and Moynahan.

In this course typical films are demonstrated during medical and surgical clerkships (*Medicine 201-202 and Surgery 204-205*).

Radiology 203-204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Caffey, Seaman, Taveras, and Wells, and Dr. Alpert.

Radiology 205—Radiotherapy. Three hours. Third and fourth years. Professors Jacox and Kligerman. Two lectures given during the combined clinic series (*Medicine 205-206*).

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox and Kligerman.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Ellis, Kligerman, Seaman, and Taveras.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Kligerman, Quimby, Rossi, Rugh, and Seaman, and Mr. Braestrup and Mr. Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*executive officer*)

Professors: V. K. Frantz, R. Lattes

Professors of Clinical Surgery: C. D. Haagensen, H. D. Harvey, R. N. Schullinger, L. W. Sloan

Clinical Professor: R. H. Wylie

Associate Professor: N. Lane

Associate Professor of Anatomy: M. R. Murray

Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, R. A. Deterling, R. H. E. Elliott, Jr., D. V. Habib, E. L. Howes, M. R. Porter, T. V. Santulli

Associate Clinical Professors: H. S. F. Cooper, J. Ferrer

Assistant Professors of Clinical Surgery: G. F. Crikelair, R. B. Hiatt, D. M. Ju, F. R. McAllister, R. L. Moore, G. Sanger, J. Scudder, E. B. Self

Assistant Clinical Professors: E. N. Goodman, A. Himmelstein

Research Associates: B. Johnson, G. Katz, M. S. Parshley, E. Peterson

Instructors: H. Auchincloss, Jr., S. B. Bhonslay, Jr., C. R. Feind, C. W. Findlay, F. P. Herter, H. F. Luddecke, W. B. Ober, L. Ozzello, J. Prudden, N. B. Thomson, A. B. Voorhees, S. G. Weissman, P. D. Wiedel, M. Wolff

Research Assistants: H. H. Benitez, C. Morris, M. S. Schwartz

Assistant: J. R. Malm

At Bellevue Hospital:

Clinical Professor: K. M. Lewis*Associate Clinical Professor:* H. C. Maier*Assistant Clinical Professors:* M. Chamberlain, R. S. Mueller, D. M. Weeks*Associates:* J. F. Bagg, W. W. Heroy, H. A. Kingsbury, A. Lambert, T. S. Winslow*Instructors:* J. Ford, P. Kirschner, K. M. Lewis, Jr., H. C. Reusch, R. K. Snyderman,

E. G. Stanley-Brown, W. A. Wichern, J. M. Wilson, Jr.

Assistants: M. Moley, E. T. Quash

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers*Assistant Clinical Professors:* A. Jaretzki III, J. Mithoefer

At Mt. Sinai Hospital:

Clinical Professor: I. D. Baronofsky

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson*Associate Clinical Professors:* F. H. Amendola, J. E. Thompson*Instructor:* J. B. Rodgers

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel*Associate Clinical Professors:* A. E. W. Ada, P. C. Morton*Assistant Clinical Professors:* H. F. Fitzpatrick, R. B. Stark*Instructors:* R. W. Frazer, W. G. Knox

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. (Includes *Orthopedic Surgery 205-206*.) Six hours a week for ten weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 201-202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204-205—Surgical outpatient department and anesthesia. (Includes *Surgery 211-212*, *Radiology 201-202*, and *Orthopedic Surgery 203-204*.) Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209-210—Outpatient clinical clerkships. Two months, combined with *Medicine 207-208*. Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211-212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery 204-205*, five and a half weeks. Third year. Professor Frantz.

Surgery 213-214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217-218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine 221-222*.

Surgery 219-220—Diagnosis of cancer. Twelve lectures. Fourth year. Professor Haagen-sen.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221-222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Deterling and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (*executive officer*)

Professor of Clinical Urology: G. W. Fish

Associate Clinical Professors: C. T. Hazzard, P. B. Hudson, M. M. Melicow, J. N. Robinson*

Assistant Professor of Biochemistry: T. Price

Assistant Professors of Clinical Urology: T. J. Sullivan, H. H. Zinsser

Associates: R. F. Seidel, T. J. Sullivan, R. J. Veenema, R. C. Yeaw

Associate in Biochemistry: M. E. Lombardo

Research Associate: H. Seneca

Instructors: S. Pulrang, A. T. Willetts

Assistants: J. E. Bowers, S. B. Braham, P. F. Crutchlow, A. L. Dean, J. T. Donovan, C. A. Furey, Jr., M. B. Pincus, M. J. Pirossi, A. C. Uson, T. A. Viscelli, F. Yandel, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201-202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professors Lattimer and Fish, and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, Roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

* On leave.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*
 G. Failla, *Professor of Radiology (Physics)*
 Edith H. Quimby, *Professor of Radiology (Physics)*
 G. E. Kimball, *Professor of Chemistry*
 D. Rittenberg, *Professor of Biochemistry*
 W. S. Root, *Professor of Physiology*
 T. Hayashi, *Associate Professor of Zoology*

The following course is required for the degree of Doctor of Philosophy:

Biophysics 202—Special problems and techniques in biophysics. Four hours spring session. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in 1958 and in alternate years thereafter.*

W. F. 4-6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, x-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *Physics 115-116, Mathematics 104, Chemistry 91-92, and Zoology 141, or their equivalents.*

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

GROSS ANATOMY. Required: *Textbook of Anatomy*, Cunningham, \$17.50; *Atlas of Descriptive Human Anatomy*, Vol. III, Sobotta, \$17.50; Dorland's or Stedman's *Medical Dictionary*, \$12.50.

MICROSCOPIC ANATOMY. Required: *Bailey's Textbook of Histology* (14th ed.). Recommended but not required: *Textbook of Histology* (7th ed.), Maximow and Bloom, \$11.

NEUROANATOMY. Required: *Human Neuroanatomy* (3d ed.), Strong and Elwyn, \$7.50; *Laboratory Manual for Neuroanatomy*. Recommended but not required: *Neuroanatomy* (2d ed.), Mettler, \$10.50; *The Anatomy of the Nervous System* (9th ed.), Ranson and Clark, \$8.50.

EMBRYOLOGY. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, \$9.50; *Human Embryology* (2d ed.), Patten, \$12.

BIOCHEMISTRY. Required: *Principles of Biochemistry*, White, Handler, Smith, Stetten, \$15; *Laboratory Manual* (1956), Staff, \$2.50.

DERMATOLOGY. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, \$13.50; *Practical Dermatology*, Lewis, \$7.50; *Syphilis, Its Course and Management*, Thomas, \$5.50; *Manual of Clinical Mycology* (2d ed., 1954), Conant, \$6.50.

MEDICINE. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed.), Martini, \$3.75; *Clinical Hematology*, Wintrobe, Lea, and Febiger (3d ed.), \$15; *Biochemistry of Disease* (2d ed.), Bodansky, Macmillan, \$12; *Textbook of Medicine* (8th ed.), Cecil and Loeb, \$15; *Principles of Internal Medicine*, Harrison, \$16; *Classical Descriptions of Disease*, Major, \$8.50. Reference textbooks: *Loose-Leaf Medicine*, Oxford, \$150.

MICROBIOLOGY. Required: *Laboratory Manual in Microbiology and Immunology*, \$3; *Zinsser Bacteriology* (11th ed.), edited by Smith and Conant, \$12.00.

NEUROLOGY. Required: *The Clinical Examination of the Nervous System*, Monrad-Krohn, \$7.50, or *The Neurologic Examination*, DeJong, \$18; and one of the following: *Textbook of Neurology*, Merritt, \$12.50; *Neurology*, Grinker, \$12.50; *A Textbook of Clinical Neurology*, Wechsler, \$9.50; *Diseases of the Nervous System*, Brain, \$8.50. Recommended but not required: *Basis of Clinical Neurology*, Brock, \$7; *Fundamentals of Clinical Neurology*, Merritt, Mettler and Putnam, \$6; *Neuroanatomy*, Mettler, \$10.50; *Diseases of the Nervous System in Infancy, Childhood and Adolescence*, Ford, \$18.50.

OBSTETRICS AND GYNECOLOGY. Required for gynecology: *Textbook of Gynecology* (5th ed.), Novak and Novak, \$9. Required for obstetrics: *Williams' Obstetrics* (11th ed.), Eastman, \$12.50.

- OPHTHALMOLOGY. Recommended: *May's Diseases of the Eye* (21st ed. rev. by C. A. Perera), \$6; *Gifford's Textbook of Ophthalmology* (6th ed.), F. H. Adler, \$7.50.
- ORTHOPEDIC SURGERY. Required: *Hand Book of Orthopedic Surgery*, St. Louis, Mosby, 1948; *Manual of Orthopaedic Surgery*, American Orthopedic Association; *A Manual of Fractures and Dislocations*, Stimson, \$3.25. Recommended but not required: *The Management of Fractures*, Key and Conwell, \$15; *Fractures* (2 vols.), Watson-Jones, \$20.
- OTOLARYNGOLOGY. Required (one of the following): *Specialties in General Practice* (chapters on ear, nose, and throat), Cecil, \$15; *Basic Otolaryngology*, F. Lederer and A. R. Hollender, \$6.75.
- PATHOLOGY. Required for 101FST (one of the following): *Textbook of Pathology*, Moore, \$13; *Textbook of Pathology*, Boyd, \$12.50; *Human Pathology*, Karsner, \$15; *Pathology*, Anderson, \$16.
- PEDIATRICS. Required (one of the following): *Holt Pediatrics*, Holt and McIntosh, \$15; *Textbook of Pediatrics*, W. E. Nelson, \$15. Recommended but not required: *Growth and Development of Children*, Watson and Lowrey (2d ed.), \$7; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, \$28; *Common Contagious Diseases*, Stimson and Hodes, \$8.50.
- PHARMACOLOGY. Required: *The Pharmacological Basis of Therapeutics*, Goodman and Gilman (2d ed.), \$17.50.
- PHYSIOLOGY. Required: *Philip Bard's Medical Physiology*, \$14.
- PSYCHIATRY. Required: *Textbook of Psychiatry* (5th ed.), Noyes and Kolb, \$7. Recommended but not required: *Introduction to Psychiatry*, English and Finch, 1954.
- PUBLIC HEALTH. Recommended: *Textbook of Clinical Parasitology* (1952), Belding, \$12.50; *Preventive Medicine and Public Health* (2d ed., 1956), W. G. Smillie, \$7.50; *Preventive Medicine for the Doctor in the Community*, H. R. Leavell and E. G. Clark, \$10; *Rosenau, Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, \$15.
- RADIOLOGY. Recommended but not required: *Outline of Roentgen Diagnosis*, Rigler, \$6.50; *Radiology for Medical Students*, Hodges, Lampe, and Holt, \$6.75.
- SURGERY. Required: *Introduction to Surgery*, Frantz and Harvey, \$2.50. Recommended but not required: *Textbook of Surgery* (4th ed.), Christopher, \$12; *General Surgery* (5th ed.), Cole and Elman, \$11; *Inhalation Anesthesia*, Guedel, \$4; *Surgery*, Homans, \$8.
- UROLOGY. Recommended but not required: *General Urology*, Smith, \$4.50; *Principles of Urology*, Campbell, \$9.50.
- A microscope of standard make fitted with the following attachments will fill the student's requirements:
1. Triple nosepiece
 2. Abbe or variable focus condenser
 3. 10x and 6x oculars
 4. 16mm. and 4mm. objectives
 5. Oil immersion lens

The cost of a suitable reconditioned microscope varies from \$100 to \$230 depending on the age, make, and model. The standard prices of new microscopes range from \$381 to \$617. Each student should also provide himself with a substage lamp. Microscopes may be rented at \$6 a month or \$52 for a school year. A limited supply of binoculars are available also for rental at \$12 a month, or \$100 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

OFFICERS OF INSTRUCTION

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS

INCLUDING THOSE IN THE GRADUATE PROGRAM

- OTT, MARGUERITE, *Assistant Professor of Occupational Therapy*; B.S., Tufts, 1947; O.T.R., Boston, 1925
- LL, LIESE L., *Assistant Professor of Biochemistry*; M.D., Frankfurt, 1935
- ERMAN, NATHAN, *Associate Clinical Professor of Psychiatry*; A.B., Columbia, 1929; M.D., 1933
- A, ALEXANDER E. W., *Associate Clinical Professor of Surgery*; B.A., Queen's (Ontario), 1923; M.D., 1926
- ERSBERG, DAVID, *Assistant Clinical Professor of Medicine*; M.D., Vienna, 1921
- ATE, FREDERICK J., *Associate Professor of Anatomy*; A.B., Columbia, 1932; Ph.D., 1949
- XANDER, HATTIE E., *Professor of Pediatrics*; A.B., Goucher, 1923; M.D., Johns Hopkins, 1930
- ANACH, MARY E., *Assistant Professor of Nursing*; B.S., Columbia, 1932; A.M., 1937
- MAN, HARRY S., *Associate Clinical Professor of Pediatrics*; M.D., New York University, 1921
- MANN, FRANZ, *Clinical Professor of Otolaryngology*; M.D., Vienna, 1925
- ENDOLA, FREDERICK H., *Associate Clinical Professor of Surgery*; B.S., College of the City of New York, 1923; M.D., Cornell, 1927
- OLS, WILLIAM, *Assistant Professor of Clinical Neurology*; A.B., New York University, 1938; M.D., 1942
- ERSEN, DOROTHY H., *Professor of Pathology*; A.B., Mt. Holyoke, 1922; M.D., Johns Hopkins, 1926; Med.Sc.D., Columbia, 1935
- DERSON, ODIN W., *Adjunct Associate Professor of Administrative Medicine*; A.B., Wisconsin, 1937; A.M., 1938; A.B., Michigan, 1940; Ph.D., 1948
- TELL, MICHAEL, *Adjunct Assistant Professor of Public Health Practice*; M.D., Long Island College, 1926; M.P.H., Harvard, 1939
- TENUCCI, ARTHUR J., *Associate Clinical Professor of Medicine*; B.S., College of the City of New York, 1926; M.D., Columbia, 1930
- AR, VIRGINIA, *Professor of Anesthesiology*; A.B., Mt. Holyoke, 1929; M.D., Columbia, 1933
- PLEBAUM, EDMUND, *Associate Professor of Dental Anatomy*; D.D.S., New York College of Dentistry, 1922
- ANOW, HENRY, *Assistant Professor of Clinical Medicine*; A.B., Harvard, 1935; M.D., Columbia, 1938
- EN, HOWARD A., *Associate Professor of Dentistry*; B.S., Fordham, 1943; D.D.S., Columbia, 1946
- ERS, HERBERT D., JR., *Associate Clinical Professor of Dentistry*; A.B., Columbia, 1929; D.D.S., 1931
- CHMAN, ARNOLD L., *Assistant Professor of Radiology*; B.S., New York University, 1931; M.D., 1934
- ILEY, FREDERICK R., *Clinical Professor of Medicine*; A.B., Princeton, 1924; M.D., Johns Hopkins, 1928
- KER, DANIEL C., JR., *Clinical Professor of Otolaryngology*; A.B., Pennsylvania, 1929; M.D., Jefferson, 1933; Med.Sc.D., Columbia, 1939
- BALDWIN, JOHN M., JR., *Assistant Professor of Clinical Medicine*; M.D., Columbia, 1939
- BALSER, BENJAMIN A., *Assistant Clinical Professor of Psychiatry*; A.B., Rochester, 1926; A.M., Harvard, 1927; M.D., Buffalo, 1931; Med.Sc.D., Columbia, 1937
- BARACH, ALVAN L., *Clinical Professor of Medicine*; M.D., Columbia, 1919
- BARKER, HAROLD G., *Associate Professor of Clinical Surgery*; A.B., Utah, 1939; M.D., Pennsylvania, 1943
- BARKER, LESLIE P., *Associate Clinical Professor of Dermatology*; M.D., Columbia, 1927
- BARNARD, MARGARET W., *Associate Professor of Public Health Practice*; A.B., Smith, 1917; M.D., Cornell, 1923; D.P.H., Johns Hopkins, 1935
- BARONOFKY, IVAN D., *Clinical Professor of Surgery*; B.S., California, 1938; Ph.D., Minnesota, 1947; M.D., Marquette, 1943
- BARTELSTONE, HERBERT J., *Assistant Professor of Pharmacology*; B.S., College of the City of New York, 1942; D.D.S., Columbia, 1945
- BAUMAN, WILLIAM A., *Assistant Clinical Professor of Pediatrics*; B.S., Harvard, 1943; M.D., Columbia, 1947
- BAUMGARTEN, HAROLD, JR., *Assistant Professor of Administrative Medicine*; A.B., Willamette, 1945
- BECKMANN, ALBERT J., *Assistant Professor of Public Health Practice*; A.B., Cornell, 1938; M.S., North Carolina, 1941; M.D., Wake Forest, 1945
- BEGG, CHARLES F., *Assistant Professor of Pathology*; A.B., Boston, 1935; M.D., Harvard, 1939
- BEHRE, JEANETTE A., *Assistant Professor of Biochemistry*; A.B., Vassar, 1913; Ph.D., Cornell, 1920
- BEISER, SAM M., *Associate Professor of Microbiology*; Ph.D., Columbia, 1951
- BENDER, MORRIS B., *Clinical Professor of Neurology*; M.D., Pennsylvania, 1931
- BENFIELD, JAMES W., *Assistant Clinical Professor of Dentistry*; D.D.S., Columbia, 1945
- BENNINGHOFF, DANIEL W., *Assistant Professor of Pathology*; A.B., Yale, 1949; M.D., Columbia, 1953
- BERGER, AGNES P., *Assistant Professor of Biostatistics*; A.M., Columbia, 1944; Ph.D., Budapest, 1939
- BERKE, RAYNOLD N., *Assistant Clinical Professor of Ophthalmology*; A.B., Minnesota, 1926; M.B., 1928; M.D., 1929
- BERNARD, VIOLA W., *Associate Clinical Professor of Psychiatry*; B.S., New York University, 1933; M.D., Cornell, 1936
- BEUBE, FRANK E., *Clinical Professor of Dentistry*; L.D.S., D.D.S., Toronto, 1930
- BICKERMAN, HYLAN, *Associate Clinical Professor of Medicine*; A.B., Columbia, 1934; M.D., New York University, 1939
- BIERMAN, WILLIAM, *Assistant Clinical Professor of Physical Medicine and Rehabilitation*; A.B., Columbia, 1915; M.D., 1917
- BILOON, SOL, *Assistant Clinical Professor of Medicine*; B.S., College of the City of New York, 1915; M.D., Cornell, 1919

- BLAKEMORE, ARTHUR H., *Associate Professor of Clinical Surgery*; B.S., William and Mary, 1918; M.D., Johns Hopkins, 1922
- BLANC, WILLIAM A., *Assistant Professor of Pathology*; B.A., College of Geneva, 1940; M.D., University of Geneva, 1947; Ph.D., 1952
- BLOCH, ROBERT G., *Clinical Professor of Medicine*; M.D., Munich, 1921
- BLUESTONE, EPHRAIM M., *Adjunct Assistant Professor of Administrative Medicine*; B.S., Columbia, 1913; M.D., 1916
- BLUMENTHAL, SIDNEY, *Associate Clinical Professor of Pediatrics*; B.S., Iowa, 1933; M.D., 1933
- BORDLEY, JAMES, III, *Clinical Professor of Medicine*; Ph.B., Yale, 1923; M.D., Johns Hopkins, 1927
- BRADLEY, STANLEY E., *Professor of Medicine*; A.B., Johns Hopkins, 1934; M.D., Maryland, 1938
- BRAGG, EVERETT C., *Assistant Clinical Professor of Orthopedic Surgery*; A.B., Cornell, 1936; M.D., 1940
- BRICKNER, RICHARD M., *Assistant Clinical Professor of Neurology*; B.S., Columbia, 1917; M.D., 1923
- BRISCOE, WILLIAM A., *Assistant Professor of Medicine*; B.A., Oxford, 1939; M.A., 1941; B.M., B.Ch., 1942; D.M., 1951
- BROWN, DONALD E., *Assistant Professor of Pathology*; M.D., Harvard, 1943
- BROWN, HAROLD W., *Professor of Parasitology*; A.B., Kalamazoo, 1924; M.S., Kansas State, 1925; Sc.D., Johns Hopkins, 1928; M.D., Vanderbilt, 1933; D.P.H., Harvard, 1936; LL.D. (hon.), Puerto Rico, 1954
- BROWN, NORTON S., *Assistant Clinical Professor of Medicine*; A.B., Stanford, 1925; M.D., 1928
- BRUCE, GORDON M., *Professor of Clinical Ophthalmology*; B.A., M.D., and C.M., Dalhousie, 1925; D.Ophth., Oxford, 1928; Med.Sc.D., Columbia, 1934
- BRUCH, HILDE, *Associate Clinical Professor of Psychiatry*; B.A., Muenchen-Gladbach, 1923; M.D., Freiburg, 1929
- BRUENN, HOWARD G., *Assistant Clinical Professor of Medicine*; A.B., Columbia, 1925; M.S., 1933; Med.Sc.D., 1934; M.D., Johns Hopkins, 1929
- BRUMFIELD, WILLIAM R., *Adjunct Associate Professor of Public Health Practice*; B.S., Virginia Polytechnic, 1926; M.D., Virginia, 1930; M.P.H., Johns Hopkins, 1935
- BRUSH, JOHN M., *Associate Clinical Professor of Pediatrics*; B.S., Princeton, 1921; M.D., Columbia, 1925
- BRZUSTOWICZ, STANISLAW H., *Assistant Clinical Professor of Dentistry*; B.S., St. Johns, 1940; D.D.S., Columbia, 1943
- BUDOWSKY, JACK, *Associate Clinical Professor of Dentistry*; D.D.S., Columbia, 1943
- BUNDRANT, THEODORE M., *Associate Clinical Professor of Dentistry*; D.D.S., Howard, 1929
- BUSHEL, ARTHUR, *Adjunct Associate Professor of Dental Public Health Practice*; A.B., Brooklyn, 1940; D.D.S., Columbia, 1943; M.P.H., 1947
- BYSSHE, STANLEY M., *Associate Professor of Clinical Obstetrics and Gynecology*; A.B., Harvard, 1927; M.D., 1931
- CAFFEY, JOHN, *Professor of Radiology*; A.B., Michigan, 1916; M.D., 1919
- CAHN, LESTER R., *Associate Professor of Oral Pathology*; D.D.S., New York College of Dentistry, 1918
- CAIN, EDWARD A., JR., *Associate Professor of Dentistry*; B.S., Fordham, 1942; D.D.S., Columbia, 1945
- CALLAHAN, MARY E., *Assistant Professor of Physical Therapy*; R.N., Clinton Hospital, 1937; R.P.T. Posse College, 1940; A.M., Columbia, 1955
- CAMPBELL, JAMES B., *Assistant Professor of Neurological Surgery*; A.B., Harvard, 1931; M.D., 1934
- CARDEN, GEORGE A., JR., *Assistant Clinical Professor of Medicine*; Ph.B., Yale, 1931; M.D., 1934
- CARPENTER, MALCOLM B., *Associate Professor of Anatomy*; A.B., Columbia, 1943; M.D., Long Island, 1947
- CARR, ARTHUR C., *Assistant Professor of Medicine*; Psychology; Ph.D., Chicago, 1952
- CARROLL, ROBERT E., *Assistant Clinical Professor of Orthopedic Surgery*; A.B., Yale, 1938; M.D., 1942
- CARTER, SIDNEY, *Associate Professor of Clinical Neurology*; A.B., Dartmouth, 1934; M.D., Boston, 1938
- CATTELL, JAMES P., *Assistant Clinical Professor of Psychiatry*; A.B., Miami, 1938; M.D., Harvard, 1942
- CAVANAGH, WILLIAM V., *Associate Clinical Professor of Obstetrics and Gynecology*; M.D., Syracuse, 1924
- CAVENESS, WILLIAM F., *Assistant Professor of Clinical Neurology*; A.B., North Carolina, 1925; M.D., McGill, 1943
- CHAMBERLAIN, MAXWELL, *Assistant Clinical Professor of Surgery*; A.B., Colorado, 1928; M.D., 1933; M.S. Michigan, 1939
- CHARGAFF, ERWIN, *Professor of Biochemistry*; Ph.D., Vienna, 1928
- CHERKASKY, MARTIN, *Adjunct Associate Professor of Administrative Medicine*; A.B., Temple, 1932; M.D., 1936
- CHIEN, SHU, *Assistant Professor of Physiology*; M.B., National Taiwan, 1954
- CIZEK, LOUIS J., *Associate Professor of Physiology*; B.S., Fordham, 1937; M.D., Columbia, 1941
- CLARK, E. GURNEY, *Professor of Epidemiology*; A.B., Vanderbilt, 1927; M.D., 1931; M.P.H. Johns Hopkins, 1936; D.P.H., 1944
- CLAY, CLEMENT C., *Associate Professor of Administrative Medicine*; A.B., Columbia, 1927; M.D., McGill, 1932
- CLEARY, CONSTANCE, *Assistant Professor of Nursing*; B.S., New York University, 1953; A.M. Columbia, 1958
- CLEVELAND, MARION D., *Assistant Professor of Nursing*; B.S., Columbia, 1941; M.S., 1945
- COFFIN, G. JARVIS, *Associate Clinical Professor of Medicine*; M.D., New York University, 1921
- COHN, LOUIS A., *Associate Clinical Professor of Dentistry*; D.D.S., Pennsylvania, 1928
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- N DYKE, HARRY B., *David Hosack Professor of Pharmacology*; B.S., Chicago, 1918; Ph.D., 1921; M.D., Rush, 1923
- NNART, GEORGE P., *Assistant Professor of Pathology*; A.B., Wesleyan, 1948; M.D., Rochester, 1953
- RLIN, WILLIAM A., *Assistant Clinical Professor of Dentistry*; A.B., Columbia, 1929; D.D.S., 1931
- CALE, CARMINE T., *Associate Professor of Clinical Neurology*; A.B., New York University, 1929; M.D., 1933
- N LACKUM, WILLIAM H., *Assistant Clinical Professor of Orthopedic Surgery*; B.S., Iowa, 1916; M.D., 1918; Med.Sc.D., Columbia, 1935
- SBURGH, GILBERT J., *Associate Professor of Obstetrics and Gynecology*; A.B., Princeton, 1938; M.D., Johns Hopkins, 1942
- ADSWORTH, JOSEPH A. C., *Assistant Clinical Professor of Ophthalmology*; B.S., Davidson, 1935; M.D., Duke, 1939
- ELSCH, HEINRICH B., *Professor of Biochemistry*; M.D., Prague, 1929; Ph.D., 1930
- ALCOTT, WILLIAM W., *Associate Professor of Physiology*; A.B., Yale, 1933; Ph.D., Columbia, 1944
- ALTNER, JULES, *Associate Professor of Clinical Otolaryngology*; M.D., University of Debrecen (Hungary), 1933
- ANG, SHIH-CHUN, *Professor of Pharmacology*; B.S., Yenching, 1931; M.D., Peiping Union Medical College, 1935; Ph.D., Northwestern, 1940
- ASSERMAN, LOUIS R., *Assistant Clinical Professor of Medicine*; A.B., Harvard, 1931; M.D., Rush, 1935
- WATKINS, MELVIN B., *Associate Clinical Professor of Orthopedic Surgery*; A.B., Utah, 1930; M.B., Northwestern, 1935; M.D., 1936
- WEBER, JOHN, *Assistant Clinical Professor of Psychiatry*; A.B., Duke, 1939; M.D., Yale, 1943
- WEEKS, DAVID M., *Assistant Clinical Professor of Surgery*; M.D., Michigan, 1927
- WEGRIA, RENE, *Associate Professor of Medicine*; M.D., Liège, 1936; Med.Sc.D., Columbia, 1945
- WEINGARTEN, BERTHOLD, *Assistant Clinical Professor of Medicine*; M.D., Frankfurt, 1922
- WEINSTOCK, HARRY I., *Associate Clinical Professor of Psychiatry*; A.B., Columbia, 1920; M.D., 1923
- WEISS, BENJAMIN, *Assistant Professor of Biochemistry*; B.S., Iowa, 1944; Ph.D., Illinois, 1949
- WEITZEN, HYMAN G., *Assistant Clinical Professor of Neurology*; A.B., New York University, 1934; M.D., 1938
- WELLS, JOSEPHINE S., *Associate Professor of Radiology*; A.B., Barnard, 1932; M.D., Columbia, 1938
- WERNER, SIDNEY C., *Associate Professor of Clinical Medicine*; A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937
- WERTHEIM, ARTHUR R., *Associate Professor of Medicine*; A.B., Dartmouth, 1935; M.D., Jefferson, 1939
- WHEELER, MAYNARD C., *Clinical Professor of Ophthalmology*; A.B., Stanford, 1926; M.D., Columbia, 1929; Med.Sc.D., 1938
- WHITMAN, CLIFFORD L., *Assistant Clinical Professor of Dentistry*; D.D.S., Maryland, 1927
- WHITTIER, JOHN R., *Assistant Clinical Professor of Psychiatry*; A.B., Harvard, 1939; M.D., Columbia, 1943
- WILCOX, ELIZABETH, *Assistant Professor of Nursing*; A.B., Mount Holyoke, 1924
- WILCOX, HERBERT B., JR., *Assistant Clinical Professor of Medicine*; A.B., Yale, 1930; M.D., Columbia, 1934
- WILLIAMS, ROGER W., *Associate Professor of Medical Entomology*; B.S., Illinois, 1939; M.S., 1941; Ph.D., Columbia, 1947
- WILSON, IRWIN B., *Associate Professor of Biochemistry*; B.S., College of the City of New York, 1941; A.M., Columbia, 1947; Ph.D., 1948
- WISHAM, LAWRENCE H., *Assistant Clinical Professor of Physical Medicine and Rehabilitation*; B.S., New York University, 1938; M.D., Chicago, 1943
- WOLCOTT, DELPHINE, *Assistant Professor of Nursing*; B.S., Columbia, 1926
- WOLF, ABNER, *Professor of Neuropathology*; A.B., Columbia, 1923; M.D., 1926
- WOLF, BERNARD S., *Associate Clinical Professor of Radiology*; B.S., New York University, 1932; M.D., 1936
- WOLFF, JAMES A., *Associate Clinical Professor of Pediatrics*; A.B., Harvard, 1935; M.D., New York University, 1940
- WOOD, CHARLES L., *Associate Clinical Professor of Pediatrics*; B.S., New York University, 1926; M.D., Yale, 1930
- WOODMAN, DE GRAAF, *Clinical Professor of Otolaryngology*; B.S., Cornell, 1917; M.D., 1926
- WYLLIE, ROBERT H., *Clinical Professor of Surgery*; Ph.B., Yale, 1927; M.D., Columbia, 1931
- YAHN, MELVIN D., *Associate Professor of Clinical Neurology*; A.B., New York University, 1939; M.D., 1943
- YU, T'SAI-FAN, *Assistant Clinical Professor of*

Medicine; B.A., Ginling College, 1932; M.D.,
Peiping Union Medical College, 1936
ZAMENHOF, STEPHEN, *Associate Professor of Bio-*
chemistry; M.E., Warsaw Polytechnic, 1933;
D.Tech.Sc., 1936; Ph.D., Columbia, 1949
ZEGARELLI, EDWARD V., *Edward S. Robinson*
Professor of Dentistry; A.B., Columbia, 1934;
D.D.S., 1937; M.S., Chicago, 1942
ZIMMERMAN, HARRY M., *Professor of Pathology*;
B.S., Yale, 1924; M.D., 1927
ZINSSER, HANS H., *Assistant Professor of Clinical*

Urology; B.S., Harvard, 1938; M.D., Colum
1942
ZINTEL, HAROLD A., *Clinical Professor of Surg*
B.S., Akron, 1934; M.D., Pennsylvania, 1938
ZUBIN, JOSEPH, *Professor of Medical Psychol*
A.B., Johns Hopkins, 1921; Ph.D., Columbia, 1

SLANETZ, CHARLES A., *Curator of Animal E*
bandry; B.S., Connecticut, 1922; M.S., 19
Ph.D., Yale, 1926

For names of associates, lecturers, and assistants, see departmental rosters (pages 27 ff.)

INTERNSHIP PLACEMENTS

CLASS OF 1958

- na, John L.—Presbyterian Hospital, New York City
 ss, Richard P.—Boston City Hospital, Boston,
 ss.
 a, Edward J.—St. Luke's Hospital, New York
 ty
 t, Alan M.—Grace-New Haven Hospital, New
 aven, Conn.
 vorth, John S.—King's County Hospital, Brook-
 n, N.Y.
 ood, William G., Jr.—University of Kansas Medi-
 l Center, Kansas City, Kansas
 andes, Samuel H.—Peter Bent Brigham Hospital,
 oston, Mass.
 el, Uriel S.—Montefiore Hospital, New York City
 e, Mary Ellen—Bellevue Hospital, New York City
 lut, Robert J.—King County Hospital, Seattle,
 ash.
 lonoff, Diana R.—Chicago Wesley Memorial, Chi-
 go, Ill.
 s, Lawrence R., Jr.—Minneapolis General Hos-
 tal, Minneapolis, Minn.
 kett, John W., Jr.—Bellevue Hospital, New York
 ty
 nder, Jerome H.—Strong Memorial Hospital,
 ochester, N.Y.
 usome, Edwin D., Jr.—Peter Bent Brigham Hos-
 tal, Boston, Mass.
 rner, Richard W.—Roosevelt Hospital, New York
 ty
 en, John S.—Presbyterian Hospital, New York
 ty
 rvin, James B.—Genesee Hospital, Rochester, N.Y.
 rger, Karl—Mount Sinai Hospital, New York City
 pbell, Robert G.—Pennsylvania Hospital, Phila-
 delphia, Pa.
 elton, Maurice H.—University of California Hos-
 tal, San Francisco, Calif.
 rry, Sheldon H.—Mount Sinai Hospital, New
 York City
 r, George V.—King's County Hospital, Brooklyn,
 Y.
 ins, Daniel J. Jr.—Roosevelt Hospital, New York
 ty
 per, Herbert L.—Presbyterian Hospital, New York
 ty
 go, Harry R.—Duke Hospital, Durham, N.C.
 Bellis, Robert H.—Bronx Municipal Hospital,
 onx, N.Y.
 ay, Harry M.—Bellevue Hospital, New York City
 nis, Brown W.—Pennsylvania Hospital, Philadel-
 phia, Pa.
 gan, Jerome W.—Parkland Hospital, Dallas,
 exas
 any, Virginia A.—Allegheny General Hospital,
 Pittsburgh, Pa.
 man, Frederic L.—Bellevue Hospital, New York
 ty
 mann, Werner J.—Brooklyn Hospital, Brooklyn,
 Y.
 elstein, James D.—Presbyterian Hospital, New
 York City
 and, Marvin—University of Chicago Clinics, Chi-
 go, Ill.
- Friendly, David S.—Bellevue Hospital, New York
 City
 Galton, Barry B.—Bronx Municipal Hospital, New
 York City
 Gaynor, Evelyn—Bronx Municipal Hospital, New
 York City
 Gilbert, Arnold—Children's Medical Center, Boston,
 Mass.
 Goldman, William H.—Mount Zion Hospital, San
 Francisco, Calif.
 Gottlieb, Arlan J.—Mount Sinai Hospital, New York
 City
 Green, Lawrence P., Jr.—Lenox Hill Hospital, New
 York City
 Gresham, Glen E.—University Hospitals of Cleveland,
 Cleveland, Ohio
 Hardy, James H., III—St. Luke's Hospital, New York
 City
 Harris, Paul D.—Strong Memorial Hospital, Rochester,
 N.Y.
 Harris, Peyton R., Jr.—St. Luke's Hospital, New York
 City
 Herbert, Robert J.—Colorado General Hospital, Den-
 ver, Colo.
 Hitchcock, John—Mary Imogene Bassett Hospital,
 Cooperstown, N.Y.
 Hnat, Richard F.—Albany Hospital, Albany, N.Y.
 Hofreuter, Don H.—Allegheny General Hospital,
 Pittsburgh, Pa.
 Hopewell, William S.—St. Luke's Hospital, New York
 City
 Horwitz, Bert S.—Presbyterian Hospital, New York
 City
 Hunt, Winslow R.—University of California Hos-
 pital, San Francisco, Calif.
 Jewell, James H., Jr.—Health Center Hospitals, Pitts-
 burgh, Pa.
 Jurkowitz, Lawrence—University of Chicago Clinics,
 Chicago, Ill.
 Kaiser, Gerard A.—Presbyterian Hospital, New York
 City
 Kane, William J.—University of Minnesota Hospitals,
 Minneapolis, Minn.
 Kantor, Joseph—Montefiore Hospital, New York City
 Kantrowitz, Paul A.—Mount Sinai Hospital, New
 York City
 Kaplan, Norman L.—Bronx Municipal Hospital, New
 York City
 Kazemi, Homayoun—Mary Imogene Bassett Hospital,
 Cooperstown, N.Y.
 Kim, Byong M.—King's County Hospital, Brooklyn,
 N.Y.
 Korenman, Stanley G.—Bellevue Hospital, New York
 City
 Landau, Benjamin B.—Bellevue Hospital, New York
 City
 Lazerson, Alan M.—Beth Israel Hospital, New York
 City
 Leland, Oliver S., Jr.—Boston City Hospital, Boston,
 Mass.
 Lindberg, Donald A.—Presbyterian Hospital, New
 York City

- Malawista, Stephen E.—Grace-New Haven Hospital, New Haven, Conn.
- Marx, Marvin H.—Barnes Hospital, St. Louis, Mo.
- Mendelson, Yonynah S.—Presbyterian Hospital, New York City
- Miller, Ronald B.—Boston City Hospital, Boston, Mass.
- Morley, Thomas J.—University of Virginia Hospital, Charlottesville, Va.
- Morris, Thomas Q.—Bellevue Hospital, New York City
- Neave, Charles—St. Luke's Hospital, New York City
- Norton, Lawrence W.—Cincinnati General Hospital, Cincinnati, Ohio
- Passloff, A. Stephen—Maimonides Hospital, Brooklyn, N.Y.
- Patterson, Andrew H.—St. Luke's Hospital, New York City
- Pellman, Carl M.—Bronx Municipal Hospital, New York City
- Perzin, Karl H.—Jefferson Medical College Hospital, Philadelphia, Pa.
- Pincus, Ralph A.—Jewish Hospital, Brooklyn, N.Y.
- Porder, Michael S.—New England Center Hospital, Boston, Mass.
- Richter, Evelyn B.—University of California Hospital, San Francisco, Calif.
- Ridlon, Herrick C.—Hartford Hospital, Hartford, Conn.
- Roffwarg, Howard P.—Stanford University Hospitals, San Francisco, Calif.
- Rubinstein, Morton—University of Chicago Hospital, Chicago, Ill.
- Santoro, Benjamin T.—University of Minnesota Hospital, Minneapolis, Minn.
- Schaefer, Robert E.—Stanford University Hospitals, San Francisco, Calif.
- Scharer, Lawrence L.—Bellevue Hospital, New York City
- Seides, Sim W.—Strong Memorial Hospital, Rochester, N.Y.
- Shainberg, David—King's County Hospital, Brooklyn, N.Y.
- Shea, Thomas M.—St. Luke's Hospital, New York City
- Sherry, Robert W.—Roosevelt Hospital, New York City
- Snyder, Elise W.—Bronx Municipal Hospital, New York City
- Snyder, William—Jackson Memorial Hospital, Miami, Fla.
- Stevelman, Harold B.—University of Virginia Hospital, Charlottesville, Va.
- Stimson, Boudinot, Jr.—St. Luke's Hospital, New York City
- Strauss, Arthur J.—Mount Sinai Hospital, New York City
- Talal, Norman—Presbyterian Hospital, New York City
- Tallerday, Charlotte—Hartford Hospital, Hartford, Conn.
- Theobald, Thomas J.—St. Vincent's Hospital, New York City
- Timmons, Richard P.—St. Joseph's Hospital, Phoenix, Ariz.
- Toole, Allan L.—Grace-New Haven Hospital, New Haven, Conn.
- Tucker, Sara S.—St. Luke's Hospital, New York City
- Van Cleve, Robert B.—University of Virginia Hospital, Charlottesville, Va.
- Wacker, Ernest A.—St. Luke's Hospital, New York City
- Watson, Richard M.—St. Luke's Hospital, New York City
- Weiner, Daniel L.—Cincinnati General Hospital, Cincinnati, Ohio
- Weir, James H.—Presbyterian Hospital, New York City
- Weiss, Carl A.—St. Vincent's Hospital, New York City
- White, Jules—Grace-New Haven Hospital, New Haven, Conn.
- White, Richard L.—Presbyterian Hospital, New York City
- Wilcke, John A.—University of Oregon Medical School Hospital, Portland, Ore.
- Wilcox, Donald F.—Stanford University Hospital, San Francisco, Calif.
- Zeidenberg, Philip—Roosevelt Hospital, New York City

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1959

Allen, Fred Huntley, Jr. B.S., Davidson, 1955	Wadesboro, N.C.	Faust, Kenneth Joseph A.B., Lehigh, 1955	Shamokin, Pa.
Living, Ralph Eric A.B., Harvard, 1955	Chicago, Ill.	Ferber, Andrew Samuel B.S., Wisconsin, 1955	New York City
Applebaum, William Schwartz A.B., Hunter, 1955	New York City	First, Robert Alan A.B., Kenyon, 1955	Gambier, Ohio
Miller, Lester A.B., Columbia, 1951	Staten Island, N.Y.	Forde, Kenneth Avril B.S., College of the City of New York, 1954	New York City
Currett, C. Redington, Jr. A.B., Yale, 1955	Greenwich, Conn.	Foulke, John David A.B., Kenyon, 1955	Steubenville, Ohio
Smith, Donald E. A.B., Columbia, 1954	New York City	Freeman, Guy Gilmore A.B., Columbia, 1955	Flushing, N.Y.
Sum, Richard Samuel A.B., Amherst, 1955	Detroit, Mich.	Gardner, Lee Robbins A.B., Barnard, 1955	New York City
Wefeler, David A.B., Columbia, 1955	Long Valley, N.J.	Gilfillan, John Thomas, Jr. B.S., U.S. Naval Academy, 1944 M.B.A., Harvard, 1949	New York City
Benjamin, William B. A.B., Columbia, 1955	Brooklyn, N.Y.	Ginsberg, George L. A.B., Brown, 1955	Fall River, Mass.
Perkman, Peter Morris A.B., Harvard, 1955	New York City	Ginsberg, Stanley Arthur A.B., Amherst, 1955	Far Rockaway, N.Y.
Wittin, Geoffrey Mellor Arks, William Parnelle A.B., Princeton, 1955	Bergenfield, N.J. Elizabeth, N.J.	Goodman, Beverly June A.B., Goucher, 1954	Baltimore, Md.
Werne, Earl Buckingham B.S., Princeton, 1954	Shaker Heights, Ohio	Gordon, I. Bradley A.B., Vermont, 1955	Brooklyn, N.Y.
Wintwell, Nelson Henry B.S., Canisius, 1954	Buffalo, N.Y.	Grainger, David William, Jr. B.S., Yale, 1955	Niles, Ohio
M.S., Fordham, 1948 Ph.D., Fordham, 1952		¹ Gudmundsen, Borre Landaas B.S., U.S. Merchant Marine Academy, 1950	New York City
Warter, James Rose, Jr. A.B., Princeton, 1955	New York City	Gutmann, Ludwig A.B., Princeton, 1955	Farmingdale, N.J.
Wase, Richard Allen A.B., Chicago, 1952	South Orange, N.J.	Harris, Donald Lee B.S., Syracuse, 1950	Forest Hills, N.Y.
Wan, Mortimer Mordecai A.B., Columbia, 1955	Brooklyn, N.Y.	Herskovic, Teodoro A.B., Harvard, 1955	Mexico, D.F., Mexico
Wark, Cornelius John G. A.B., Harvard, 1952	New York City	Hilles, Linda A.B., Barnard, 1955	New York City
Whehen, Howard A.B., Washington and Jefferson, 1951	New York City	Hillman, Robert Swart B.S., Tufts, 1955	Brooklyn, N.Y.
Wollier, Robert Harrison A.B., Princeton, 1955	Indianapolis, Ind.	Hollander, Charles S. A.B., Columbia, 1955	New York City
Wollins, John Austin A.B., Fordham, 1955	New York City	Hulka, Barbara Sorenson A.B., Radcliffe, 1952	New York City
Woustantin, LeRoy Liberal A.B., Columbia, 1955	Clifton, N.J.	M.S., Juilliard, 1954	
Wukier, Daniel Simon B.S., College of the City of New York, 1955	New York City	Izard, Mark Whitaker A.B., Columbia, 1954	New York City
Wvidoff, Frank Fisher A.B., Harvard, 1955	New Canaan, Conn.	Jesse, Mary Jane A.B., Nazareth, 1939	New Canaan, Conn.
Wvidson, Charles Bailey B.S., Yale, 1955	Portsmouth, N.H.	Johnson, Theodore Herbert A.B., Harvard, 1954	New Britain, Conn.
Wvavis, Jessica Groszof A.B., Wellesley, 1955	Brooklyn, N.Y.	Jones, Ellyn Palmer A.B., Wooster, 1955	Princeton, N.J.
Wvuss, Richard George A.B., Yale, 1955	New York City	Jones, Robert Holmes B.S., Davidson, 1955	Macon, Ga.
Wvunne, Peter Benjamin A.B., Harvard, 1955	Washington, D.C.	¹ Justice, James W. A.B., Yale, 1954	Clinton, Tenn.
Wvlgar, Malcolm Shepherd A.B., Princeton, 1955	Summit, N.J.	² Kane, Kendall Kent A.B., Princeton, 1955	Dover, Ohio
Wvding, David Ph.D., McGill, 1955	Montreal, Canada	Kanter, Ira Edward A.B., Haverford, 1955	Newton, Mass.
Wvuteri, Amerigo John A.B., Princeton, 1955	Trenton, N.J.	Kaplan, Edward Steven A.B., Yale, 1955	Memphis, Tenn.
Wvstein, Manfred David A.B., New York University, 1955	New York City		

¹ Withdrew. ² Research year 1957-1958.

Keller, Jean Bohnt	Bronxville, N.Y.	Roome, Norman Sterling	New York Cit
B.S., Cornell, 1955		A.B., Columbia, 1955	
Kundel, Harold Louis	Jamaica, N.Y.	Rosen, Samuel Morton	Paterson, N.J.
A.B., Columbia, 1955		A.B., Hamilton, 1955	
Lietman, Paul Stanley	Cuyahoga Falls, Ohio	Rosenberg, Arthur Henry	Ventnor, N.J.
A.B., Western Reserve, 1955		A.B., Amherst, 1955	
Linwood, Richard Arnold	Bellmore, N.Y.	Rosenfield, Allan G.	Brookline, Mass
A.B., Yale, 1955		A.B., Harvard, 1955	
London, Frederick Allan	New York City	Schieffelin, John Winterbotham	
A.B., Princeton, 1955		A.B., Harvard, 1954	White House Station, N.J.
Ludes, Bernard Francis	Valley Stream, N.Y.	Schwartz, Arnold	New York Cit
B.S., Rensselaer Polytechnic Institute, 1955		A.B., Columbia, 1955	
MacDonald, Carlton A., Jr.	Baldwin, N.Y.	Shaw, William Vare	Wynnewood, Pa
A.B., Princeton, 1954		A.B., Williams, 1955	
McConnell, Donald Verne	Toronto, Ohio	Sigler, Paul Benjamin	Rockaway Beach, N.Y.
A.B., Princeton, 1955		A.B., Princeton, 1955	
McHugh, Burton Peek	Bronxville, N.Y.	Simon, Bennett	Brooklyn, N.Y.
A.B., Harvard, 1954		A.B., Harvard, 1955	
McKinney, Alexander Stuart	New York City	Slack, Warner Vincent	Upper Montclair, N.J.
A.B., Princeton, 1955		A.B., Princeton, 1955	
Michelsen, Walter James, Jr.	Salt Lake City, Utah	Smith, Martin Jay	Long Beach, N.Y.
A.B., Columbia, 1951		A.B., Hofstra, 1955	
Middleton, Augustus Loftus, Jr.	Sumter, S.C.	² Smith, Thomas G.	Le Grange, Ga
A.B., Princeton, 1952		A.B., Emory, 1955	
Miller, Orlando	Tulsa, Okla.	Spitzer, Kenneth H.	Skaneateles, N.Y.
A.B., Yale, 1955		B.S., Hobart, 1955	
Moscarella, Alfred Anthony	Spring Valley, N.Y.	Storm, George	New Canaan, Conn
A.B., Colgate, 1955		A.B., Yale, 1955	
Mott, Peter Dodge	Washington, D.C.	Strauch, Berish	New York Cit
A.B., Princeton, 1955		A.B., Columbia, 1955	
Mueller, Mark Noble	Englewood, N.J.	Strehan, Theodore Leonard	Leonia, N.J.
A.B., Colgate, 1955		A.B., Fordham, 1955	
Muiznieks, Ansie	Princeton, N.J.	Tegtmeyer, Gamber Frederick	Milwaukee, Wis
B.S., Columbia, 1955		A.B., Kenyon, 1955	
Munsick, George Washington	Morristown, N.J.	Tikoff, Gerasim	New York Cit
Munsie, William Johnson	Manchester, Conn.	A.B., Columbia, 1955	
B.S., Tufts, 1955		Vadeika, Edward	Hillside, N.J.
Myers, Joseph Kieffer, Jr.	Akron, Ohio	A.B., Hamilton, 1955	
A.B., Princeton, 1955		Wallace, Seymour	New York Cit
Newman, Matthew	Blue Point, N.Y.	A.B., Columbia, 1954	
A.B., Vanderbilt, 1956		Weech, Alexander Ashley, Jr.	Cincinnati, Ohio
Nourouk, David S.	Brooklyn, N.Y.	A.B., Princeton, 1955	
B.S., College of the City of New York, 1955		Weems, Charles E.	Washington, D.C.
Petersen, Robert Allen	St. Albans, N.Y.	A.B., Yale, 1955	
B.S., Queens, 1955		Wender, Paul Herbert	New York Cit
Petersen, Veronica Stinnes	Haverford, Pa.	A.B., Harvard, 1955	
A.B., Pembroke, 1955		Wheeler, Leonard, Jr.	Cambridge, Mass
Phillips, Gene Marshall	Middletown, Ohio	A.B., Harvard, 1955	
A.B., Princeton, 1955		Widrow, David Richard	Versailles, Conn
Pines, Joseph	New York City	A.B., Yale, 1954	
A.B., Yale, 1955		Wilson, George Campbell, Jr.	Norwich, Conn
Pi-Sunyer, F. Xavier	Montclair, N.J.	A.B., Yale, 1955	
A.B., Oberlin, 1955		Wolf, Sheldon Mark	Brooklyn, N.Y.
Pittman, Fred Estes	Cleveland, Miss.	A.B., Columbia, 1955	
A.B., Yale, 1955		Wosnitzer, Maclyn Elliott	Newark, N.J.
Plaut, Thomas F.	Dayton, Ohio	A.B., Dartmouth, 1955	
A.B., Yale, 1955			
Prescott, Richmond	New York City		
A.B., Harvard, 1949; LL.B., 1952			
Pressman, Peter I.	New York City		
A.B., Columbia, 1955			
Prothero, S. Richard	Springfield, Mass.		
B.S., Bates, 1955			
Pugatch, Donald	Richmond Hill, N.Y.		
A.B., Columbia, 1955			
Reiss, Robert Marshall	New York City		
A.B., Columbia, 1951			
Rohde, Richard Louis	Grand Forks, N.D.		
B.S., North Dakota, 1957			

¹ Withdrew. ² Research year 1957-1958.

derson, Richard Dawson A.B., Birmingham Southern, 1956	Birmingham, Ala.	Glezen, John Marcena A.B., Hamilton, 1956	Cortland, N.Y.
ller, Barry Maurice A.B., Columbia, 1956	New York City	Glinnsman, Walter Henry A.B., Columbia, 1956	Bronxville, N.Y.
imenthal, Jesse Arthur A.B., Columbia, 1956	Brooklyn, N.Y.	Goldfinger, Stephen Edward A.B., Princeton, 1956	Brooklyn, N.Y.
adley, Edward B. A.B., Hamilton, 1956	Utica, N.Y.	¹ Goldstein, Malcolm A.B., Columbia, 1956	Forest Hills, N.Y.
aun, Peter B.S., Yale, 1956	Bridgeport, Conn.	Graham, Paul Albert A.B., Princeton, 1956	Wheeling, W. Va.
ownlee, William Harry B.S., Davidson, 1956	Charlotte, N.C.	Hanson, Kenneth Charles A.B., St. Olaf, 1956	Watertown, S.D.
llan, Desmond A.B., Columbia, 1950	Brooklyn, N.Y.	Heimarck, Gregory James A.B., St. Olaf, 1956	Edina, Minn.
nnellos, George Peter A.B., Harvard, 1956	East Boston, Mass.	Heller, Stanley Samuel A.B., Yale, 1956	New York City
oy, Martin Frank A.B., Yale, 1956	Jersey City, N.J.	Hersh, Evan Manuel B.S., College of the City of New York, 1956	New York City
ark, Julian Joseph A.B., Princeton, 1956	Brooklyn, N.Y.	Hicks, William Ray A.B., Princeton, 1956	Winnetka, Ill.
utz, Richard Baker A.B., Princeton, 1956	St. Davids, Pa.	Hollander, Joshua A.B., Columbia, 1956	New York City
ats, Thomas F. A.B., Kentucky, 1952	Lexington, Ky.	Holsclaw, Douglas S., Jr. A.B., Arizona, 1956	Tucson, Ariz.
ffey, Edward Lyman A.B., Princeton, 1956	Westfield, N.J.	Hoppin, Frederic Gallatin, Jr. A.B., Harvard, 1956	Huntington, N.Y.
hen, Michael Irwin A.B., Columbia, 1956	New York City	Howes, Edward Lee, Jr. A.B., Yale, 1956	Dobbs Ferry, N.Y.
hen, Peter Jacob A.B., Princeton, 1956	New York City	Janin, Matthew Joel A.B., Columbia, 1956	New York City
mmings, Dean Winfred A.B., Montana State, 1952	Plains, Mont.	Johnson, John Richard B.S., Ohio, 1956	Quaker City, Ohio
wes, Henry F. A.B., Princeton, 1956	Englewood, N.J.	Kallen, Roland Gilbert A.B., Amherst, 1956	Newark, N.J.
Dede, Renee Marilyn A.B., New York University, 1953	New York City	Kane, Kendall Kent A.B., Princeton, 1955	Dover, Ohio
nnner, Joseph Leroy A.B., Westminster, 1953	Alva, Okla.	Kao, Priscilla M. N. A.B., Pennsylvania, 1956	Singapore, Malaya
nnick, Leonard Gainsworth, Jr. A.B., Colgate, 1956	Hamburg, N.Y.	Kaufman, Roger Stuart A.B., Princeton, 1956	Monroe, N.Y.
Simone, Arthur Robert B.S., Manhattan, 1956	Glendale, N.Y.	Keller, Howard Irving A.B., Princeton, 1956	Plainfield, N.J.
herty, Richard Arthur A.B., Amherst, 1956	Newport, Me.	King, Donald Latham A.B., Stanford, 1956	San Marino, Calif.
lganos, Ellen Marie A.B., Vassar, 1956	Jersey City, N.J.	Klein, Herbert Alan A.B., Columbia, 1956	Upper Montclair, N.J.
owney, James Lewis A.B., Yale, 1956	Darien, Conn.	Korhammer, Alan Francis A.B., Princeton, 1956	Mt. Vernon, N.Y.
yle, George B. A.B., Harvard, 1956	Worcester, Mass.	¹ Kott, Stephen A.B., Michigan, 1956	Verona, N.J.
uncan, William Yeats III B.S., Yale, 1953	New Haven, Conn.	Kroll, Arnold Joseph A.B., Princeton, 1956	Jersey City, N.J.
unne, Peter B. A.B., Harvard, 1955	Washington, D.C.	Kronfeld, Peter Paul A.B., Wesleyan, 1956	Wilmette, Ill.
udson, Grace Gene A.B., Wellesley, 1949	Wellesley Hills, Mass.	Leach, Charles Nelson A.B., Amherst, 1956	Newfane, Vt.
rmann, Norbert August A.B., Princeton, 1953	Toms River, N.J.	Lehwalder, Laurus Waldemar B.S., Oregon State, 1952	Butte, Mont.
nde, Robert Newcomb A.B., Dartmouth, 1956	Katonah, N.Y.	Lennon, Arthur Joseph A.B., Fordham, 1956	New York City
mbrega, Horacio, Jr. A.B., Pennsylvania, 1956	Boston, Mass.	MacLean, Neil Murdo A.B., Hamilton, 1956	Byram, Conn.
rkner, George Norman A.B., Yale, 1956	Pittsburgh, Pa.	MacLowry, James Don A.B., Yale, 1956	Buffalo, N.Y.
rwand, Stanley Arthur A.B., Union, 1956	New York City	Marubbio, Adolph T. A.B., New York University, 1956	Brooklyn, N.Y.
nsberg, Joel A.B., Princeton, 1956	Brooklyn, N.Y.	Marx, Herbert J. B.E.E., Rensselaer Polytechnic, 1954	St. Albans, N.Y.

¹ Withdrew.¹ Withdrew.

Mayers, Lester Barry A.B., Wisconsin, 1956	New York City	Smith, Richard Stanton A.B., Wesleyan, 1956	Laconia, N.H.
Milligan, Richard Scott A.B., Kenyon, 1956	Richmond, Ind.	Smith, Thomas Graves, Jr. B.A., Oxford, 1956	La Grange, G.
Mogil, Sandra Louise A.B., Barnard, 1956	New York City	Solomon, Sheila Horn B.S., McGill, 1953	New York Ci
Moroff, Saul Victor A.B., Yale, 1956	Reading, Pa.	Sorger, Martin Lawrence A.B., Hamilton, 1956	Newark, N.
Nadel, Alfred Joel A.B., Union, 1956	New York City	Stanley, George Richard B.S., Oklahoma, 1956	Lawton, Okl
Nelson, Michael Kenneth A.B., Columbia, 1956	Brooklyn, N.Y.	Stassa, George A.B., Columbia, 1956	Forest Hills, N.
Neuhardt, Robert George B.S., Yale, 1956	Pelham Manor, N.Y.	Suarez, John Michael A.B., Columbia, 1956	New York Ci
Nicklaus, Ted Maurice A.B., Yale, 1956	Amarillo, Tex.	Swinton, Neil Williams, Jr. A.B., Haverford, 1956	Waban, Ma
Nold, Mary Beatrice A.B., Northwestern, 1946 A.M., Mills, 1948 B.L.S., California, 1951	Berkeley, Calif.	Taylor, William R. B.S., Worcester Polytechnic Institute, 1955	Leominster, Ma
Nova, Harvey Ronald A.B., Brooklyn, 1956	Brooklyn, N.Y.	Temple, William Edward A.B., Columbia, 1956	Ridgewood, N.
Oppenheim, Joost Joe A.B., Columbia, 1956	New York City	Touloukian, Robert James A.B., Columbia, 1956	New York C
Palombo, Stanley Robert A.B., Harvard, 1955	Brooklyn, N.Y.	Troupin, Allan Stuart A.B., Columbia, 1956	Geneva, Switzerla
Penn, Audrey Shields A.B., Swarthmore, 1956	New York City	Troupin, Rosalind Hilsen B.S., College of the City of New York, 1956	New York C
Phelps, Paulding A.B., Haverford, 1955	Philadelphia, Pa.	Trunnel, Thomas Lowry Urschel, William Powell A.B., Princeton, 1956	Kirkville, M Bowling Green, O
Picoff, Ronald Chester A.B., Columbia, 1956	Brooklyn, N.Y.	Weiss, Bernard A.B., Columbia, 1956	Forest Hills, N.
Pincus, Jonathan Henry A.B., Amherst, 1956	Brooklyn, N.Y.	Wolfe, David Emery A.B., Columbia, 1956	Seattle, Was
Poliner, George Franklin A.B., Wesleyan, 1956	Springfield, Mass.	<i>Third Year: Class of June, 1960</i>	
Raine, Alan Charles A.B., Queens, 1953	Hollis, N.Y.	SECOND-YEAR CLASS—CLASS OF JUNE, 1961	
Ravel, Richard A.B., Harvard, 1953	Clearwater, Fla.	Allen, Charles DeBertram A.B., Harvard, 1957	Sanford, M
Reilly, Herbert Faulkner, Jr. A.B., Princeton, 1956	Forest Hills, N.Y.	Alling, Frederic Augustus A.B., Princeton, 1952	Montclair, N
Richards, Ernest Carter A.B., Yale, 1956	Rye, N.Y.	Argall, Temby Richie A.B., Yale, 1957	Lakesville, Cor
Riggins, Robert C. K. A.B., Yale, 1956	New York City	Banks, Peter Alan A.B., Harvard, 1957	Chestnut Hill, Ma
Robbins, Jay Howard A.B., Harvard, 1956	Woodmere, N.Y.	Bard, David Sayre B.S., Stetson, 1957	New York C
Roman, Theodore Presley A.B., Dakota Wesleyan, 1956	Rosholt, S.D.	Bates, Griffin Miller, Jr. A.B., Hamilton, 1957	Jamaica, N.
Rosen, Ora A.B., Barnard, 1956	New York City	Becker, Heber Weidler, Jr. B.S., Franklin and Marshall, 1957	Lancaster, I
Rowland, Christopher V., Jr. A.B., Princeton, 1956	Reedsville, Pa.	Beckman, Daryl Elizabeth A.B., Mount Holyoke, 1957	Byrn Mawr, I
Rucker, Charles Monroe B.S., Arizona, 1956	Flagstaff, Ariz.	Benjamin, Burton Irving A.B., Hamilton, 1957	Forest Hills, N.
Sachs, John Richard B.S., Manhattan, 1956	Brooklyn, N.Y.	Billig, Stuart Lawrence A.B., Hamilton, 1957	New York C
Salot, William Harry A.B., Amherst, 1956	Mt. Clemens, Mich.	Bowe, Edward Thomas B.S., Columbia, 1956	Bronx, N.
Scham, Stewart Marvin A.B., New York University, 1956	Yonkers, N.Y.	Bowers, Henry Myers, Jr. A.B., Princeton, 1957	Chatham, N
Schuh, Frederic DeGraw B.S., Trinity, 1956	Teaneck, N.J.	Brill, Charles Beauford A.B., Lafayette, 1957	New York C
Schwartz, Elias A.B., Columbia, 1956	Brooklyn, N.Y.	Brunjes, Carl Frederick A.B., Yale, 1957	Hartsdale, N.
Seto, Dexter S. Y. A.B., Kenyon, 1956	Honolulu, T.H.	Bullwinkel, George Albert, Jr. A.B., Yale, 1957	Rye, N.
Smith, Lloyd DuBois, Jr. A.B., California, 1956	Oakdale, Calif.	Campbell, Allen Barry A.B., Princeton, 1957	Cleveland Heights, Ol

istensen, Edward Warren A.B., Columbia, 1957	Harlan, Iowa	Harvey, Seth A.B., Princeton, 1955	New York City
rk, Hugh A.B., Williams, 1957	Pottersville, N.J.	Hendricks, Ed Jerald A.B., Rice Institute, 1957	Dallas, Tex.
enger, Joseph Henry, Jr. A.B., Princeton, 1957	Muncie, Ind.	Hope, Peter Blanchard A.B., Harvard, 1957	New York City
en, Martin Noel A.B., Harvard, 1957	Passaic, N.J.	Janoski, Alfonso Hubert A.B., Seton Hall, 1957	Newark, N.J.
en, Stanley A.B., Columbia, 1957	Brooklyn, N.Y.	Kalinske, Robert Wayne A.B., Yale, 1957	Tucson, Ariz.
in, Lawrence Jerome A.S., Franklin and Marshall, 1957	Brooklyn, N.Y.	Katz, Edward Lyle A.B., Princeton, 1957	Hartford, Conn.
ning, Howard Burt A.B., Harvard, 1957	Syosset, N.Y.	Katz, Leonard Allen A.B., Yale, 1957	Buffalo, N.Y.
ran, John Patrick A.B., Saint Mary's, 1957	St. Paul, Minn.	Kim, Dong Su A.B., Bowdoin, 1957	Taejon, Korea
ey, Sara Elizabeth A.B., Vassar, 1957	Bronxville, N.Y.	Knebel, Ruthmary Spear A.B., Mount Holyoke, 1956	Canaan, N.Y.
ies, Betty Shannon A.B., Mount Holyoke, 1948	Brightwaters, N.Y.	Kohler, Peter Francis A.B., Princeton, 1957	Milwaukee, Wis.
A.M., Texas, 1949		Kohn, Leonard David A.B., Columbia, 1957	Easton, Pa.
h.D., Iowa, 1952		Kovel, Joel Stephen B.S., Yale, 1957	Rockville Centre, N.Y.
us, Peter Emanuel A.S., Manhattan, 1957	New York City	Labourdet, Irene Lois A.B., Oberlin, 1952	Lincoln Park, N.J.
utzler, William Hoyt A.B., Princeton, 1957	Milwaukee, Wis.	A.M., Iowa, 1954	
ey, Mary Louise A.B., Wellesley, 1957	Livermore Falls, Me.	Lemlich, Arthur B.S., Columbia, 1957	New York City
ker, Norman A.B., Columbia, 1957	New York City	Levitzy, Munro Joseph A.B., Columbia, 1957	Brooklyn, N.Y.
nis, Allen Johnson, Jr. A.B., Rice Institute, 1957	Macon, Ga.	Lightdale, Mayer Raynes A.B., Princeton, 1957	Jersey City, N.J.
el, Thomas Franklin A.B., Princeton, 1957	Short Hills, N.J.	Luftschein, Stanley A.B., Columbia, 1957	Flushing, N.Y.
Witt, Robert James A.B., Carleton, 1957	Oconto, Wis.	Luikart, William Ernst A.B., Columbia, 1957	Woodhaven, N.Y.
erstein, Joel Lawrence A.B., Princeton, 1957	Bayonne, N.J.	Mack, Thomas McCulloch A.B., Carleton, 1957	Minden, Nev.
ante, Lawrence John A.B., Princeton, 1957	Long Island City, N.Y.	Maenza, Ronald Morton A.B., Columbia, 1957	Jackson Heights, N.Y.
yer, Edward Michael A.B., Columbia, 1957	Plymouth, Pa.	Marcuse, Donald James A.B., Harvard, 1957	New York City
ery, Edward Stanley, III A.B., Princeton, 1957	Milton, Mass.	Marglin, Arnold Gershaw A.B., Harvard, 1957	Hollywood, Calif.
el, Jerry Bernard A.B., Columbia, 1957	New York City	Melges, Frederick Towne A.B., Princeton, 1957	Battle Creek, Mich.
ning, William Hare A.B., Yale, 1957	Columbus, Ohio	Meyer, Arthur Young B.M.E., Rensselaer Polytechnic Institute, 1953	Fort Lee, N.J.
ood, Barbara Joyce A.B., Wellesley, 1953	New York City	Meyer, James Hugh A.B., Princeton, 1957	Milwaukee, Wis.
te, James Lyman A.B., Harvard, 1957	Concord, Mass.	Meyerson, Arthur Theodore A.B., Columbia, 1957	New York City
man, Richard Alan A.B., Williams, 1957	Swampscott, Mass.	Millheiser, Peter John A.B., Columbia, 1957	New York City
ss, Joseph Lewis A.B., Princeton, 1957	Lynbrook, N.Y.	Morgan, Walter Edward, III A.B., Wesleyan, 1957	Glen Ridge, N.J.
den, Gerald Samuel A.B., Princeton, 1957	Newark, N.J.	Mulcare, Robert John A.B., Princeton, 1957	Garden City, N.Y.
gory, Raymond Frederick A.B., Princeton, 1957	Galveston, Tex.	Nachamie, Benjamin Abraham A.B., Columbia, 1957	Brooklyn, N.Y.
ssbard, Lionel A.B., Columbia, 1957	Brooklyn, N.Y.	Neer, Robert Marshall A.B., Harvard, 1957	Urbana, Ohio
ssman, Frederick Maurice A.B., Harvard, 1957	El Paso, Tex.	O'Connell, Francis Daniel A.B., Harvard, 1957	Uxbridge, Mass.
genheim, Frederick Gibson A.B., Yale, 1957	Washington, D.C.	Pfueger, Otto Henry, Jr. A.B., Reed, 1957	San Francisco, Calif.
n, Paul Perkins, Jr. A.B., Princeton, 1957	Elkin, N.C.	Philip, James Louis B.S., Michigan, 1957	Worcester, Mass.

Leave of absence.

Powell, William John, Jr. A.B., Harvard, 1957	Duxbury, Mass.	Stevenson, Donald Day A.B., Princeton, 1957	Rye, N.Y.
Redman, Helen Cornelia A.B., Rochester, 1957	Great Neck, N.Y.	Stouch, William Haydn A.B., Princeton, 1957	York, Pa.
Reich, Paul Richard A.B., Princeton, 1957	Hackensack, N.J.	Strayer, Luther Milton, III A.B., Princeton, 1957	Stratford, Conn.
Reichel, William A.B., Columbia, 1957	New York City	Stuart, Philip Frazer A.B., Bowdoin, 1957	Lakewood, Ohio
Reifsnyder, David Navarre A.B., Columbia, 1957	Chester, N.Y.	Talbott, John Andrew A.B., Harvard, 1957	Eden (Buffalo), N.Y.
Robbins, Michael Daniel, Jr. A.B., Amherst, 1955	West Englewood, N.J.	Teran, Irwin Burton A.B., Columbia, 1957	Flushing, N.Y.
Robinson, James Alan A.B., Wesleyan, 1957	Mount Vernon, N.Y.	Terry, Stephen A.B., B.S., Arizona, 1957	Tucson, Arizona
Robinson, John Lee A.B., Yale, 1957	Omaha, Neb.	Thurer, Richard Jerome A.B., Princeton, 1957	Hicksville, N.Y.
¹ Rockwell, Richard George A.B., Hamilton, 1957	Pittsburgh, Pa.	Townsend, Eleanor Meneely A.B., Sarah Lawrence, 1957	New York City
Rosen, John Friesner A.B., Harvard, 1957	Katonah, N.Y.	Troy, Bart Lynch A.B., Georgetown, 1957	Melrose, Mass.
Ryan, John Francis A.B., Boston College, 1957	Jamaica Plain, Mass.	Tucker, Marjorie Jane A.B., Radcliffe, 1957	Brooklyn, N.Y.
Schwarzberg, Jane Elizabeth A.B., Barnard, 1957	New York City	Wanderer, Alan Anson A.B., Earlham, 1957	Woodside, N.Y.
Schwartzman, William Robert A.B., Columbia, 1957	New York City	Wanger, Stephen Lewis A.B., Yale, 1957	Albany, N.Y.
Scott, Robert Henderson A.B., Carleton, 1957	Northfield, Minn.	Watson, Charles Gray A.B., Princeton, 1957	Carnegie, Pa.
Sheagren, John Newcomb A.B., Carleton, 1957	Rockford, Ill.	Weber, Eric Taylor A.B., Oberlin, 1957	Clinton, N.Y.
Sherwood, Louis Maier A.B., Johns Hopkins, 1957	Hempstead, N.Y.	Weil, Richard, III A.B., Princeton, 1957	New York City
Skolnick, M. Leon A.B., Columbia, 1957	Forest Hills, N.Y.	Whaley, David Anthony A.B., Rochester, 1957	Kenmore, N.Y.
Song, Chull Sung B.S., Birmingham-Southern, 1957	Seoul, Korea	Wilson, Paul Tyler A.B., Columbia, 1954	Park Ridge, Ill.
Standfast, Susan Jane A.B., Wells, 1957	Binghamton, N.Y.		

¹ Leave of absence.

Second Year: Class of June, 1961

STUDENTS ACCEPTED FOR THE CLASS OF 1962

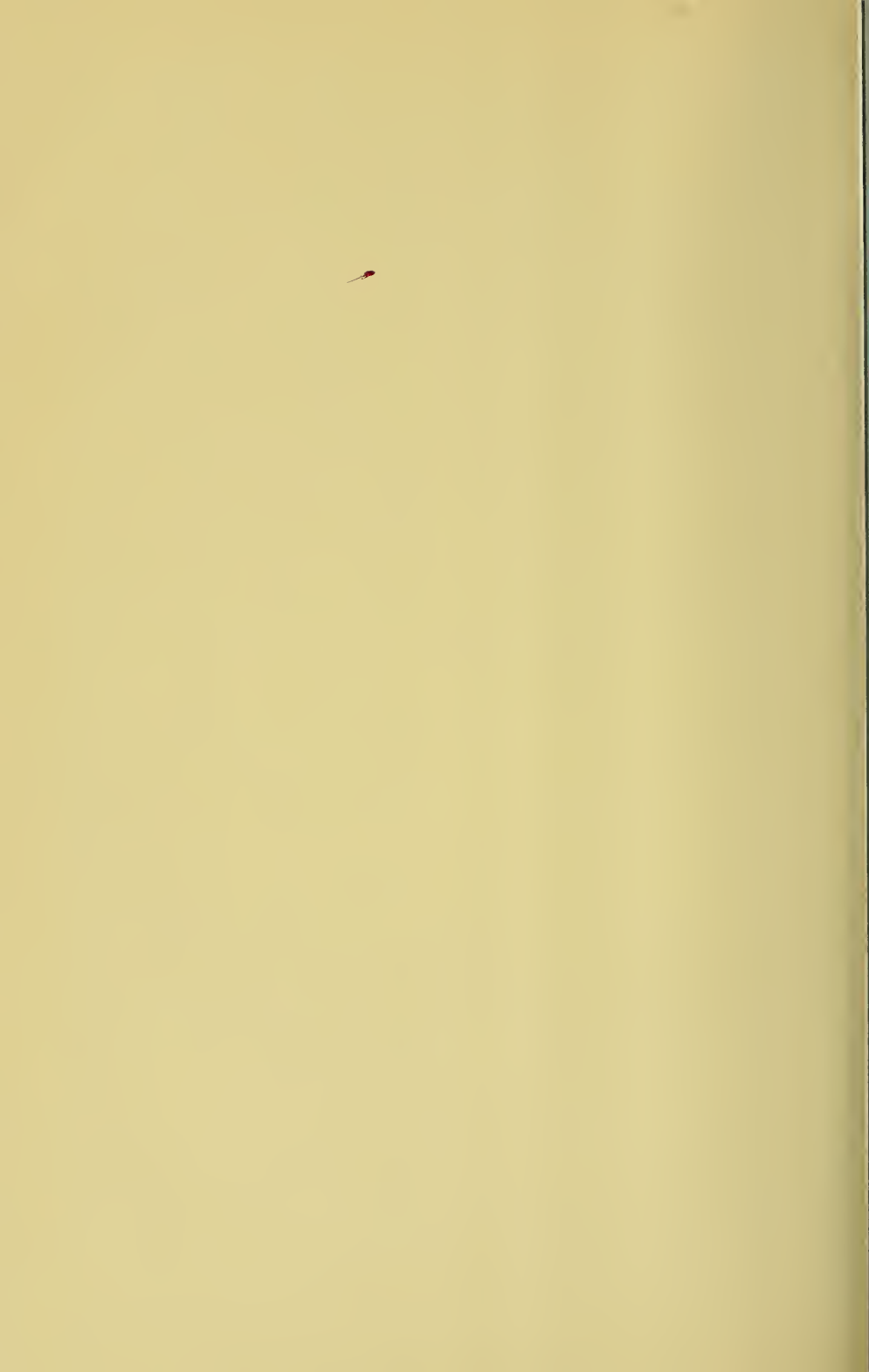
Acerman, Albert B. A.B., Princeton, 1958	Elizabeth, N.J.	Congleton, Ann A.B., Wellesley, 1958	Dayton, Ohio
Acen, Thomas E. A.B., Princeton, 1958	Milwaukee, Wis.	Coulis, Despine L. A.B., Smith, 1958	Salem, Mass.
Agur, Newell A., Jr. B.E., Yale, 1958	St. Louis, Mo.	Covey, William G. A.B., Columbia, 1958	New York City
Aker, Fred L. A.B., Wabash, 1958	Owensboro, Ky.	Dauber, Leonard G. A.B., Columbia, 1958	Brooklyn, N.Y.
Alow, Peter B. A.B., Harvard, 1958	Englewood, N.J.	Dubin, Howard V. A.B., Columbia, 1958	New York City
Alrens, Myles M. A.B., Yale, 1958	Brooklyn, N.Y.	Duncan, William C., III A.B., Princeton, 1958	Northampton, Mass.
Al, Donald C. A.B., Wooster, 1953	Wooster, Ohio	Flagg, Stephen V. B.S., Yale, 1957	Englewood, N.J.
Al, H. Glenn, Jr. A.B., Stanford, 1958	San Francisco, Calif.	Flood, Barbara Joyce A.B., Wellesley, 1953	New York City
Alkes, Kenneth J., Jr. A.B., Hamilton, 1958	Baldwin, N.Y.	Fogelberg, Earl Victor A.B., Princeton, 1958	Chicago, Ill.
Alman, Howard H. A.B., Duke, 1958	Silver Spring, Md.	Fox, Howard A. B.S., Union, 1954	Brooklyn, N.Y.
Alahler, Stephen A.B., Williams, 1958	Camden, N.J.	Ph.D., Columbia, 1958	Brooklyn, N.Y.
Alss, John P. A.B., Harvard, 1958	Stamford, Conn.	Frankel, Herman Morris A.B., Columbia, 1958	New York City
Alwn, Courtney Warren A.B., Williams, 1957	Scarsdale, N.Y.	Gamble, Anne van N. A.B., Mount Holyoke, 1956	Laurelton, N.Y.
Alwn, Richard M. A.B., Princeton, 1958	Princeton, N.J.	Geller, Arthur S. A.B., Williams, 1958	Brooklyn, N.Y.
Alck, Harold M. A.B., Hamilton, 1958	Newark, N.J.	Gollance, Robert B. A.B., Harvard, 1958	New Canaan, Conn.
Alst, John C. M., Jr. A.B., Harvard, 1958	Syracuse, N.Y.	Grant, John P., Jr. A.B., Amherst, 1954	Liberty, N.Y.
Alckley, Marcia A. A.B., Mount Holyoke, 1958	Wakeman, Ohio	Grant, Sandra Elisabeth A.B., Bryn Mawr, 1958	Philadelphia, Pa.
Al, Sherman M. A.B., Yale, 1958	Riverdale, N.Y.	Graves, Mary L. A.B., Pennsylvania, 1958	Hartford, Conn.
Alrress, Donald A. A.B., Ripon, 1955	Wauwatosa, Wis.	Gray, Parke H. A.B., Williams, 1958	Brooklyn, N.Y.
B.S., M.S., Massachusetts Institute of Technology, 1956	South Bend, Ind.	Gutstein, Robert A. A.B., Colgate, 1958	Belleville, N.J.
Bmpbell, James M. B.S., Yale, 1958	Secaucus, N.J.	Haft, Jacob I. A.B., Harvard, 1958	Brooklyn, N.Y.
Bazza, Albert R. A.B., Princeton, 1958	New York City	Hankin, Edwin A.B., Columbia, 1958	Pacific Palisades, Calif.
Bssileth, Peter A. A.B., Union, 1958	Washington, D.C.	Herzberg, Robert M. A.B., Reed, 1958	New York City
Bton, Donald B.S., Yale, 1958	Stillwater, Okla.	Hirschhorn, Norbert A.B., Columbia, 1958	Brooklyn, N.Y.
Bve, Robert H. A.B., Oklahoma State, 1958	New York City	Hurst, Fred S. A.B., Princeton, 1958	Yonkers, N.Y.
Bao, Solan A.B., Cornell, 1954	Corona Del Mar, Calif.	Immordino, Peter A. A.B., New York University, 1958	Gurnee, Ill.
Bates, Edward D. A.B., Yale, 1958	Port Jervis, N.Y.	Johnson, Warren D., Jr. B.S., Carroll, 1958	Union City, N.J.
Bhen, Donald S. A.B., Hamilton, 1958	Brooklyn, N.Y.	Karliner, Joel S. A.B., Columbia, 1958	Wenatchee, Wash.
Bhen, Stanley J. A.B., Columbia, 1958	Scarsdale, N.Y.	Kilburn, Howard Lee A.B., University of Washington, 1958	Cincinnati, Ohio
Bhn, Frank Peter A.B., Columbia, 1958	Cortland, Ohio	Klein, William J., Jr. A.B., Cincinnati, 1957	Shaker Heights, Ohio
Bldiron, John S. A.B., Hiram, 1958		Kovach, John S. A.B., Princeton, 1958	Jersey City, N.J.
		Kraut, Joel A. A.B., Princeton, 1958	

Kreek, Mary Jeanne A.B., Wellesley, 1958	Washington, D.C.	Romas, Nicholas A. A.B., Colgate, 1958	Phoenix, Ar
Lerner, Irving J. A.B., Yale, 1958	Cincinnati, Ohio	Root, Elihu N. B.S., College of the City of New York, 1958	New York C
Lesneski, Albert C. A.B., Princeton, 1958	Elizabeth, N.J.	Rosen, Barbara J. B.S., Simmons, 1956	Dedham, Ma
Lettiere, Anthony C. B.S., Holy Cross, 1958	Hartford, Conn.	M.S., Vassar, 1958	Brooklyn, N.
Levine, Jonathan A.B., Columbia, 1958	Brooklyn, N.Y.	Rygorsky, Jerome E. A.B., New York University, 1958	Brooklyn, N.
Lovejoy, William P. A.B., Yale, 1956	Old Wick, N.J.	Schiff, Eugene R. A.B., Michigan, 1958	Cincinnati, O
Margolies, Lawrence Noel A.B., Columbia, 1958	New York City	Schuster, Timothy S. A.B., Harvard, 1958	Hewlett, N.
Margolies, Michael N. A.B., Harvard, 1958	Flushing, N.Y.	Schwartz, Gabriel H. A.B., Princeton, 1958	Mount Vernon, N.
Marks, Clement E., Jr. A.B., Dartmouth, 1958	Bethlehem, Pa.	Seidenberg, Boyd H. A.B., Columbia, 1958	Bronxville, N.
McCarroll, Henry R. A.B., Princeton, 1958	St. Louis, Mo.	Sherman, Spencer E. A.B., Princeton, 1958	Englewood, N
McCray, Richard S. A.B., Wesleyan, 1954	Columbus, Ohio	Silver, Stephen E. A.B., Princeton, 1958	Brooklyn, N.
B.D., Yale, 1957		Smelzer, Timothy H. A.B., Hamilton, 1958	Pittsburgh, I
Miller, Robert L. A.B., Hamilton, 1958	Elmira, N.Y.	Solomon, Henry A. A.B., Columbia, 1958	Brooklyn, N.
Moloy, Peter Jay A.B., Harvard, 1958	New York City	Steele, Thomas H. B.S., Haverford, 1958	New Castle, I
Mosher, Paul W. A.B., Harvard, 1958	Albany, N.Y.	Stewart, Franz H. A.B., Emory, 1958	Miami, F
Murphy, Scott A.B., Yale, 1957	Merion, Pa.	Talbot, Bernard A.B., Columbia, 1958	New York C
Nadel, Martin S. A.B., Hamilton, 1957	Brooklyn, N.Y.	Thompson, Robert D. A.B., Princeton, 1958	Akron, O
Nasr, Khosrow B.S., Yale, 1958	Tehran, Iran	Ulin, Richard I. B.S., Franklin and Marshall, 1958	Elmont, N
Nisonson, Ian A.B., Columbia, 1958	New York City	Valuska, James W. A.B., Princeton, 1958	Mingo Junction, C
Oppenheimer, Edward Anthony A.B., Columbia, 1958	New York City	Vogel, James M. A.B., A.M., Wesleyan, 1958	New York
Orahood, Richard C. A.B., Ohio Wesleyan, 1958	Marysville, Ohio	Waldbaum, Robert S. A.B., Columbia, 1958	Brooklyn, N
Pagliaro, Salvatore J. A.B., Columbia, 1958	New York City	Walker, Barry R. A.B., Yale, 1958	Reading,
Pascal, Robert R. A.B., Columbia, 1958	New York City	Waterson, Karl William, Jr. B.S., Washington and Lee, 1958	Summit, I
Patek, David J. A.B., Harvard, 1958	New York City	Weinstein, Joel David A.B., Princeton, 1958	Memphis, T
Plimpton, Sarah G. A.B., Smith, 1958	New York City	Weksler, Marc E. A.B., Swarthmore, 1958	Brooklyn, N
Puchner, Peter J. A.B., Carleton, 1958	Manitowoc, Wis.	White, John J., Jr. A.B., Yale, 1958	Glen Rock,
Purcell, Ganson, Jr. A.B., Williams, 1958	Washington, D.C.	Williams, Thomas A. A.B., Harvard, 1958	Racine,
Rappaport, Michael Lee A.B., Harvard, 1958	Glencoe, Ill.	Winslow, Robert B. A.B., Princeton, 1958	Ridgefield, C
Reber, Robert E. A.B., Ohio, 1958	Circleville, Ohio	Wolf, Peter M. A.B., Yale, 1957	Metairie
Reese, Thomas S. A.B., Harvard, 1957	Cleveland, Ohio	Zeft, Howard J. A.B., Princeton, 1958	Philadelphi









CONDENSED ACADEMIC CALENDAR

The complete Academic Calendar for the year 1958-1959 may be obtained from the Secretary of the University.

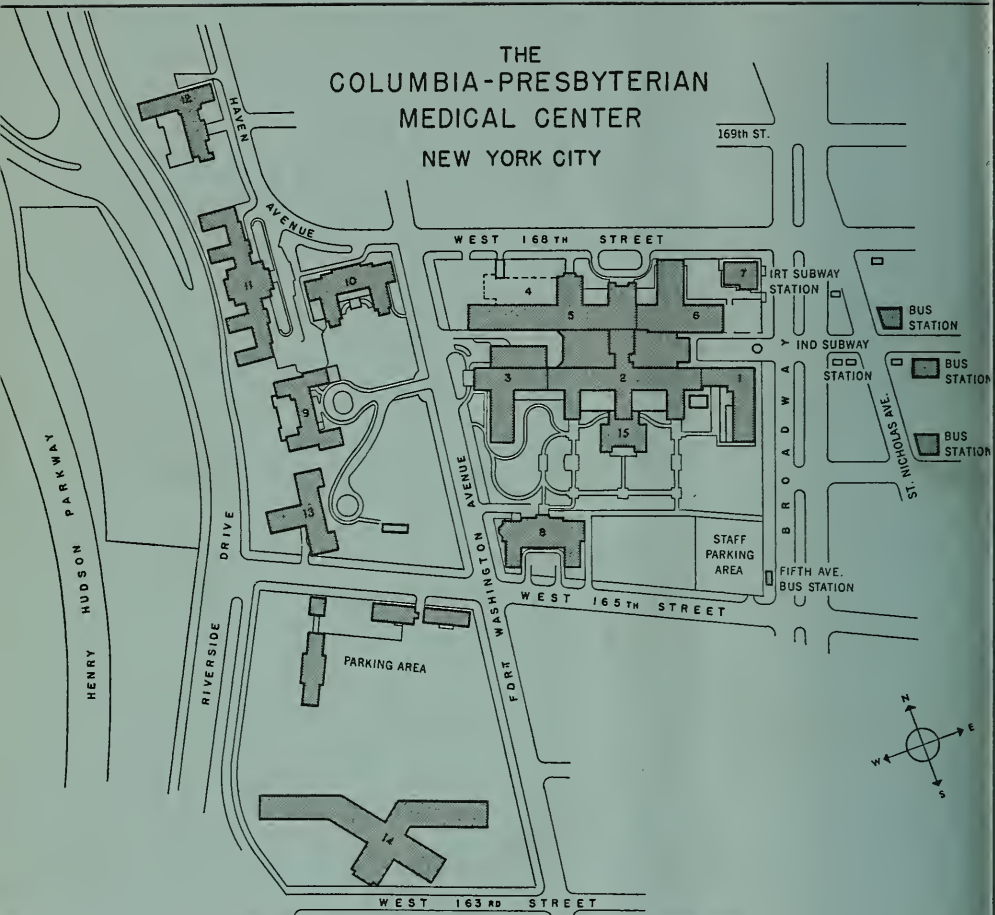
1958

- May 22 Thursday, through May 23, Friday. Registration (including payment of University fee) for the Third- and Fourth-Year Classes.
- June 2 Monday. New academic year begins for the Third- and Fourth-Year Classes.
- August 1 Friday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
- September 11 Thursday, through September 13, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
- September 15 Monday. Classes begin.
- October 8 Wednesday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D. to be awarded in October.
- November 4 Tuesday. Election Day. Holiday.
- November 27 Thursday. Thanksgiving Day. Holiday.
- December 1 Monday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
- December 22 Monday, through

1959

- January 3 Saturday. Christmas holidays.
- February 20 Friday. Last day for filing application for Cutting and Ellis Fellowships.
- February 23 Monday. Washington's Birthday. Holiday.
- March 2 Monday. Last day for filing application or renewal of application for all degrees and certificates, except doctoral degrees, to be conferred in June. The privilege of later application may be granted on payment of a late fee.
- April 1 Wednesday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
- March 23 Monday, through March 28, Saturday. Easter holidays.
- May 25 Monday, through May 29, Friday. Final examinations.
- May 30 Saturday. Memorial Day. Holiday.
- June 2 Tuesday. Conferring of degrees.

THE
COLUMBIA-PRESBYTERIAN
MEDICAL CENTER
NEW YORK CITY



- | | |
|---|---|
| 1. BABIES HOSPITAL | 7. N. Y. CITY DEPT. OF HEALTH
SCHOOL OF PUBLIC HEALTH AND
ADMINISTRATIVE MEDICINE |
| 2. PRESBYTERIAN HOSPITAL
N. Y. ORTHOPAEDIC HOSPITAL
SLOANE HOSPITAL
SQUIER UROLOGICAL CLINIC | 8. INSTITUTE OF OPHTHALMOLOGY |
| 3. HARKNESS PAVILION | 9. MAXWELL HALL |
| 4. POWER HOUSE | 10. NEUROLOGICAL INSTITUTE |
| 5. COLLEGE OF PHYSICIANS AND SURGEONS | 11. N. Y. STATE PSYCHIATRIC INSTITUTE |
| 6. VANDERBILT CLINIC
SCHOOL OF DENTAL AND ORAL SURGERY | 12. BARD HALL |
| | 13. HARKNESS MEMORIAL HALL |
| | 14. FRANCIS DELAFIELD HOSPITAL, N.Y.C. |
| | 15. PAULINE A. HARTFORD MEMORIAL CHAPEL |

COLUMBIA UNIVERSITY BULLETIN

SERIES FIFTY-NINE • NUMBER TWENTY-EIGHT • JULY 11, 1959

College of Physicians and Surgeons

OF THE FACULTY OF MEDICINE

1959-1960



COLUMBIA-PRESBYTERIAN MEDICAL CENTER

630 WEST 168TH STREET • NEW YORK 32 • NEW YORK

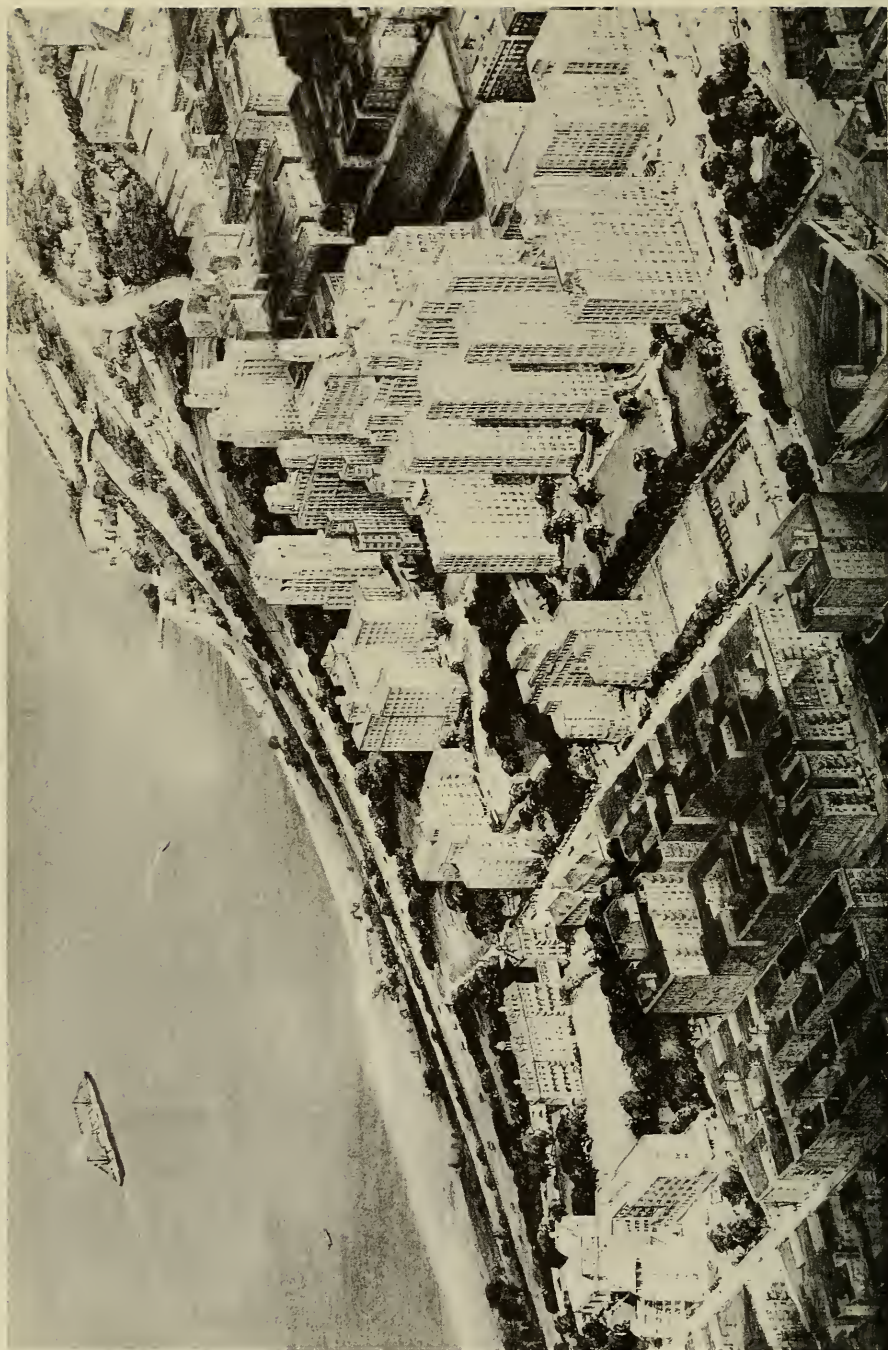
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VIEW OF BARD HALL FROM RIVERSIDE DRIVE



COLUMBIA-PRESBYTERIAN MEDICAL CENTER

FACULTY OF MEDICINE

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THE SCHOOL OF MEDICINE

Columbia University began as King's College, which was founded in 1754 by royal grant of George II, King of England, "for the Instruction of Youth in the Learned Languages, and the Liberal Arts and Sciences." The Revolutionary War interrupted its program, but in 1784 it was reopened as Columbia College. In 1912 the title was changed to Columbia University in the City of New York.

King's College organized a medical faculty in 1767 and was the first institution in the North American Colonies to confer the degree of Doctor of Medicine in course. The first individuals to graduate in medicine from the College were Robert Tucker and Samuel Kissam, who received the degree of Bachelor of Medicine in May, 1769, and that of Doctor of Medicine in May, 1770, and May, 1771, respectively. Instruction in medicine was given until the War of the Revolution. In 1784 instruction was resumed in the academic department. Eight years later the medical faculty was reestablished. In 1814 the medical faculty of Columbia College was merged with the College of Physicians and Surgeons, which had obtained an independent charter in 1807. In 1860, by agreement between the Trustees of the two institutions, the College of Physicians and Surgeons became the Medical Department of Columbia College; from that time on the diplomas of the graduates were signed by the President of Columbia College, as well as by the President of the College of Physicians and Surgeons. The connection was only a nominal one, however, until 1891, when the College was incorporated as an integral part of the University. Since September, 1917, women have been admitted to the School on the same basis as men. In 1945 the medical faculty was made responsible for the educational programs in Medicine, Dental and Oral Surgery, Public Health, and Nursing.

The School of Medicine as a part of the Medical Center occupies a site on West 168th Street between Broadway and Fort Washington Avenue. It is housed in a seventeen-story, fire-resisting, steel, brick, and concrete building, each floor connecting with the wards and services of Presbyterian Hospital.

SCHOOL OF PUBLIC HEALTH AND ADMINISTRATIVE MEDICINE

The School of Public Health and Administrative Medicine is an integral part of the medical faculty of Columbia University. The staff provides both graduate and undergraduate instruction and research opportunities in preventive and administrative medicine and in community organization for health services of all types.

DEPARTMENT OF NURSING

The basic professional nursing program at Columbia prepares qualified young women to practice nursing effectively in hospitals, homes, and in the various types of health agencies. Nursing is interpreted as including health promotion through education, care of the sick and injured, and their restoration to a useful place in society. The program of study includes instruction in the basic sciences and nutrition; theory and supervised experience in the major clinical areas of medical, surgical, maternity, orthopedic, pediatric, psychiatric, and public health nursing. Completion of the program requires three academic years and two summer sessions, and leads to the award of the degree of Bachelor of Science from Columbia University. See the Nursing bulletin for further details.

PHYSICAL THERAPY AND OCCUPATIONAL THERAPY

The Faculty of Medicine offers a program of study leading to a Bachelor of Science degree in physical therapy and in occupational therapy or, for those who already have a Bachelor's degree, a Certificate of Proficiency in Physical Therapy or in Occupational Therapy.

RADIOLOGIC PHYSICS

The Faculty of Medicine offers a program of study in radiologic physics, leading to the degree of Master of Science. This course is designed to prepare candidates to carry out all functions of a physicist in a hospital department of radiology. See page 50.

Further information regarding this course may be obtained from the Office of the Department of Radiology, College of Physicians and Surgeons, 630 West 168th Street, New York 32, N.Y.

BULLETINS

The bulletins of the above schools and of the other colleges and schools of the University and of the Summer Session may be obtained without charge by writing to the Office of University Admissions, 322 University Hall, Columbia University, New York 27, N.Y.

Letters requesting additional information and all correspondence regarding admission should be addressed to the Dean of the Faculty of Medicine, 630 West 168th Street, New York 32, N.Y.

For information pertaining to the staffs of hospitals at the Columbia-Presbyterian Medical Center and other hospitals affiliated for teaching purposes, described on subsequent pages, see the annual publications of these institutions.

THE COLUMBIA-PRESBYTERIAN MEDICAL CENTER

A permanent affiliation between Columbia University and Presbyterian Hospital was established in 1921. The College of Physicians and Surgeons of Columbia University in conjunction with Presbyterian Hospital and several other institutions comprising the Medical Center now occupy a plot of land given to Columbia University and Presbyterian Hospital by Mrs. Stephen V. Harkness and Mr. Edward S. Harkness. The land, extending from West 165th Street to West 168th Street and from Broadway to Riverside Park, comprises about twenty acres and is readily accessible from all parts of the city.

The Medical Center was opened in the spring of 1928. The Medical Center group consists of the following units: the College of Physicians and Surgeons; School of Dental and Oral Surgery; Department of Nursing; School of Public Health and Administrative Medicine; Washington Heights Health and Teaching Center; New York State Psychiatric Institute; the Francis Delafield Hospital; the Presbyterian Hospital and its subdivisions—the Squier Urological Clinic, the Institute of Ophthalmology, Harkness Pavilion, Sloane Hospital for Women, Vanderbilt Clinic, Babies Hospital, Neurological Institute, the New York Orthopaedic Hospital, and the Mary Harkness Convalescent Home. See the map of the Medical Center on the back cover of this bulletin.

PRESBYTERIAN HOSPITAL

Founded in 1868, the hospital now occupies a twenty-two-story building in which are the wards of the medical and surgical services, the Sloane Hospital for Women, and the Squier Urological Clinic. To provide for personal contact between doctor and patient, the hospital is divided into floor units of between sixty and seventy beds. Harkness Pavilion for private patients is connected with the main building. Under the terms of the affiliation with Columbia University, members of the hospital staff are appointed by the Board of Trustees of the Hospital on nomination by the Trustees of the University. There are about 435 (Sloane, Squier, Presbyterian) teaching beds.

Squier Urological Clinic occupies the tenth floor of the Presbyterian Hospital building and the tenth floor of Babies Hospital. There are sixty-seven beds for the care of adults and nineteen beds for babies and children. There are laboratories fully equipped to do diagnostic, x-ray, microbiological, pathological, fluoroscopic, and research work. The clinic has two large, especially equipped operating rooms. The urological outpatient department, situated in Vanderbilt Clinic, is fully equipped for cystoscopic, x-ray, and laboratory work.

The Institute of Ophthalmology was made possible by the generosity of Edward S. Harkness. The hospital and laboratories for the study of diseases of the eye are active in the training of physicians and nurses. The hospital contains thirty-seven ward beds.

Harkness Pavilion, which contains 294 beds, is available for the accommodation of private patients of the attending staff.

Sloane Hospital for Women, originally at West 59th Street and Amsterdam Avenue, was presented to Columbia University by Mr. and Mrs. William D. Sloane in 1886. It now occupies three floors of the Presbyterian Hospital building for ward and semiprivate patients and two floors in Harkness Pavilion for private patients. The wards of the hospital furnish 116 beds for obstetrical and gynecological patients. Patients, other than emergencies, are admitted to the hospital through Vanderbilt Clinic. The deliveries in the hospital number about thirty-five hundred a year.

Vanderbilt Clinic, presented by the Vanderbilt family to Columbia University in 1888, is the outpatient department common to all the hospitals in the Medical Center. It is a fully equipped dispensary for the sick poor. The professors of the Medical School, with their assistants, have charge of its professional services. The building is so arranged that each department has rooms for practical instruction in small sections. All modern appliances for the treatment of disease are available, so that the students can learn thoroughly the use of all methods in each of the special departments of medicine. A Group Practice Clinic, which was organized in Vanderbilt Clinic in 1946, has proved to be a forward step in the treatment of patients as well as of great value in the teaching of fourth-year medical students.

Babies Hospital provides for general medical and surgical care of infants and children up to and including twelve years of age. One floor of the hospital is devoted to the care of private and semiprivate patients. Three floors are equipped with laboratories. Both outdoor and indoor playrooms are provided for convalescent children. The total capacity of the hospital is 196 beds. Laboratories are operated for the routine and research work of the hospital in pathology, microbiology, and chemistry. An outpatient department is maintained in Vanderbilt Clinic by the visiting and house staff of the hospital. In addition to the general medical and surgical clinics, there are special clinics for the care of premature infants and for patients suffering from heart disease, tuberculosis, epilepsy, asthma, and other diseases.

Neurological Institute, one of the first nongovernmental hospitals in this country for the treatment of nervous diseases, was founded in 1909. The original building at 149 East 67th Street was occupied continuously up to March, 1929, when the Institute was moved to the Medical Center. This has made possible the development of a broad basic program of teaching and research in neurology and in the treatment of the sick in the affiliated units of the Medical Center. The present hospital has 104 ward beds and is devoted exclusively to the treatment of diseases of the nervous system and surgical conditions of the brain and nervous system. Facilities are provided for bedside teaching in the wards for both undergraduate and graduate students.

New York Orthopaedic Hospital, established in 1868, was consolidated with the Presbyterian Hospital in 1945. It was moved to the Columbia-Presbyterian Medical Center in December, 1950, and is now an integral part of the Presbyterian Hospital and the Medical School. It has sixty-seven ward beds. Facilities are available for the care and treatment of orthopedic conditions and fractures in children and adults. Teaching laboratories are provided in the Medical School.

NEW YORK STATE PSYCHIATRIC INSTITUTE

A 176-bed hospital built and maintained by the state of New York, the Institute provides for the study and treatment of all types of psychiatric disorders. There are special facilities for the treatment of children presenting behavior and personality problems. Connected with the hospital is an active outpatient department providing diagnostic and treatment facilities. The hospital maintains special clinical and research laboratories and an extensive psychiatric library. The members of the hospital staff have teaching appointments in the Department of Psychiatry and take an active part in the instruction of the medical students.

FRANCIS DELAFIELD HOSPITAL

Built and maintained by the city of New York, the hospital has 285 beds for the treatment and study of cancer. A program of research and of graduate and undergradu-

ate instruction in the malignant diseases is conducted here under the terms of an agreement with the city of New York whereby Columbia University nominates the entire professional staff. The hospital is equipped with three floors of laboratories for research and has a modern outpatient department and up-to-date facilities for all methods of study and treatment of cancer.

OTHER HOSPITALS USED FOR TEACHING

Bellevue Hospital, a unit of the New York City Department of Hospitals, was founded in 1736 as a "Publick Workhouse and House of Correction of the City of New York," and received its present name in 1816. It has 2,684 beds used for the treatment of acute diseases. One of its four divisions has been utilized for instruction by the Faculty of the College of Physicians and Surgeons for over one hundred years. The staff of the service is appointed by the Commissioner of Hospitals on the nomination of Columbia University. During the fourth year, clinical clerkships are provided in general medicine, general surgery, and tuberculosis. A unit of 316 beds for chest diseases under the Columbia Division provides the most up-to-date equipment and facilities for diagnosis and therapy in tuberculosis and other pulmonary disorders.

Goldwater Memorial Hospital in the Department of Hospitals of New York City was opened on Welfare Island in 1939 to fill the need for intensive research in chronic diseases and to establish adequate facilities for the care of the chronically ill. It contains 1,436 beds. The First Division of the hospital, which is under the auspices of Columbia University, contains 100 research beds and is used for instruction of undergraduate and postgraduate students in the problems of chronic disease.

Hospital for Joint Diseases, established in 1905 as a hospital for deformities and joint diseases, accommodates 305 patients, including 60 in the Country Home at Far Rockaway.

Mary Imogene Bassett Hospital in Cooperstown, New York, is affiliated with the University for the teaching of Medicine and surgery. It has 111 beds.

Montefiore Hospital for Chronic Diseases, founded in 1884, has a capacity of 643 beds devoted to the treatment of all diseases usually treated in a general hospital, with emphasis on treatment of long-term diseases. The neurological division of 160 beds is used for undergraduate instruction. Short courses for graduates are given annually in collaboration with Columbia University.

Mount Sinai Hospital, organized in 1852, accommodates 1,136 patients. Since 1923 the hospital has been affiliated with Columbia University for postgraduate instruction, particularly for physicians in general practice and for elective undergraduate work in pediatrics and obstetrics. There are 432 beds available for teaching purposes.

Roosevelt Hospital, established in 1864, is a general hospital containing 461 beds. Its facilities are used in the teaching of medicine and surgery to undergraduate and postgraduate students.

St. Luke's Hospital, established in 1850, contains 523 beds, including 80 beds for infants and children. It is affiliated with the University for the teaching of undergraduates, and all services participate in the program of graduate medical education.

Woman's Hospital, founded in 1855, was the first institution established by women "for the treatment of diseases peculiar to women and for the maintenance of a Lying-In Hospital." It has 190 beds. In 1937 an affiliation was arranged with Columbia University to participate in the program of training specialists in obstetrics and gynecology.

LIBRARY

The Medical Library occupies parts of the three lower floors in the College of Physicians and Surgeons. It provides current literature (both books and journals) for faculty and students, and it aids in research through its own collections of current and historical works, through interlibrary loans, and through its unique bibliographic service.

The Library contains approximately two hundred and twenty-five thousand volumes of books and journals, some five thousand pamphlets, and about two thousand lantern slides on the history of medicine. More than three thousand periodicals are received regularly. A professional library staff is available to aid students, faculty, and research workers in the schools of Medicine, Nursing, and Public Health and Administrative Medicine, and in the hospitals of the Medical Center.

The libraries on Morningside Heights, containing approximately three million volumes, are open to all students. They include collections on biology, chemistry, physics, psychology, sociology, and other subjects related to medicine and supplement the special collections available in the Medical Library. Books and journals may be borrowed for home use.

The Medical Library is open Monday through Friday, 8:30 a.m. to 10 p.m.; Saturday, 9 a.m. to 6 p.m.; and Sunday, 12 m. to 5 p.m. during the academic year. All other libraries post the hours they are open.

BARD HALL

Bard Hall, the residence for students of the Medical School, is located on property of the Medical Center at 50 Haven Avenue. It is eleven stories high with three additional stories in the north wing and occupies a site overlooking Riverside Park and the Hudson River. The facilities of the Hall include lounging rooms, a dining room, a cafeteria and grillroom, a gymnasium, squash courts, and a swimming pool.

The second and third floors are arranged to accommodate women students.

Rates for accommodations range from \$250 to \$500 for the academic year of thirty-eight weeks. First- and second-year medical student residents subscribe to a five-day-per-week, fifteen-meal, prepaid board plan. The present rate is \$360 for the academic year, exclusive of the Christmas and Easter holiday periods. In case of marked increase in operating costs, all rates are subject to change. Room application blanks and further information concerning rates will be furnished on request by the Bard Hall Office, 50 Haven Avenue, New York 32, N.Y.

ADMISSION, REGISTRATION, AND EXPENSES

Entering classes will be enrolled in the Medical School once each year in September and will complete the prescribed course in four years. The next entering class will register September 10-12, 1959. Application for admission is made for the next incoming class only, and requests for application forms may be addressed to the Dean one year in advance of matriculation. Every application must be accompanied by a check or money order for \$10, payable to Columbia University, to cover the cost of processing the application. The fee is not returnable and is not credited toward tuition.

The Committee on Admissions devotes months to the task of selecting a class of one hundred and twenty from a very large number of applicants. Obviously there will be many well-qualified students whom the School will not be able to accept. The Faculty of Medicine recognizes its obligations in the field of medical education and research not only to the local area but to the nation and to the world as well, and welcomes qualified candidates from widely distributed geographical areas, provided they meet the standards of admission.

The minimum requirement for admission to the first-year class is attendance for three full academic years at an approved college of arts and sciences, although most applicants present four academic years and a baccalaureate degree. The Committee on Admissions gives priority to the more advanced students.

The liberal arts program must include English, physics, and biology, covering at least one academic year each, and courses in chemistry covering at least one and a half academic years, including a course in organic chemistry. The student may concentrate on the subject of his choice, whether in the natural sciences, social sciences, humanities, or arts, but evidence of a balanced education, rather than a preparation limited largely to the natural sciences, is preferred.

The Committee places great importance on the fact that the student has learned to think for himself, to explore, to work hard under his own initiative, to face alternatives and make decisions, and has developed a desire for a continuous program of self-education. Preference is given in the selection of students to those who have shown, in the opinion of the Committee on Admissions, high achievement in their college education, a mature sense of values and sound motivation, qualities of leadership, willingness and ability to assume responsibility, and who, therefore, have already given evidence that they are likely to become ethical, well-trained, and competent physicians.

The practice of medicine is both a science and an art, and to treat the patient as a whole man, the doctor must be a whole man himself. Students planning a career in medicine should be motivated toward becoming leaders in medical thinking, rather than technicians, because medical practice is both a private enterprise and a public responsibility. The liberal arts college offers the opportunity to prepare for a happier and more useful life of citizenship. Years of specialization lie ahead in a professional career, but the foundation of all advanced study is a broad liberal education.

If a personal interview is required in connection with the application, it will be requested by the Dean's office.

ADMISSION TO ADVANCED STANDING

Only a limited number of vacancies occur during the medical course, and students can be accepted on transfer from other schools only when such vacancies do occur. Any student desiring to transfer to the upper classes of the School should communicate with the Dean to learn if vacancies exist.

ADMISSION OF FOREIGN STUDENTS

The State Department of Education has special requirements with which students who are not citizens of this country must comply. Any foreign student desiring to apply to the Medical School should communicate with the Dean.

DOCTOR OF PHILOSOPHY

A limited number of properly qualified students may be accepted by the departments of basic science in the Medical School as graduate students and as candidates for the degree of Doctor of Philosophy. Work toward the degree is under the jurisdiction of the Faculty of Pure Science of the University. See the bulletin of the Graduate Faculties for admission and degree requirements and for courses of instruction.

RESEARCH IN RESIDENCE

A graduate student who desires to engage in special clinical or investigative work under the direction of a department may, with the approval of the Dean, register for research in residence. During the academic year, the fee is \$75 for any period which is not longer than an autumn or spring term. During the summer, between Commencement and registration in September, the fee is \$10.

REGISTRATION

Before attending courses every student must present himself at the Office of the Registrar, file a registration blank giving such information as may be required, and pay his fees. The office is situated on the second floor of the College of Physicians and Surgeons, 630 West 168th Street, and is open from 9 a.m. to 5 p.m. daily except Saturdays and holidays. The periods set aside for registration in each term are stated in the Academic Calendar. Registration at a later date is permitted only with the written consent of the Dean.

FEES

The University statutes provide that tuition fees and the University fee are payable semiannually in advance (see the Academic Calendar). As stated above, payment of fees is the last step in the registration procedure; checks should be drawn to the order of Columbia University.

No reduction is made for late registration. If fees are paid after the last day of registration, a statutory charge of \$6.00 is automatically imposed. Under the regulations, the privileges of the University are not available to any student until he has completed his registration.

The following annual fees, prescribed by statute for medical students, are subject to change at any time at the discretion of the Trustees:

University fee

For all students for one academic year, payable in two installments	\$ 48.00
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Tuition fee

For the full course in medicine for one academic year (or equivalent), payable in two installments	1,100.00
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For students not enrolled for the full course, fees are to be assessed by the Registrar as provided by the University statutes.

Medical school athletic and recreational fee

This fee entitles students to use without charge the athletic and recreational facilities of Bard Hall, the residence for medical students. For all students, per academic year, payable in two installments

10.00

Student health and hospital fee

This fee will be used to pay the annual premium of the Associated Hospital Service of New York for hospital insurance (unless a student already has hospital insurance) and to pay part of the cost of the student health service. For all students, per academic year

30.00

Application fees

For admission

10.00

For each special examination

10.00

For renewal of application for a degree (see below)

1.00

Late fees

For late registration

6.00

For late application for each special examination

5.00

For late application, or renewal of application, for a degree

5.00

Rebates

The University fee, the student health and hospital fee, application fees, and late fees are not subject to rebate. If a student withdraws from the School, a partial return of the tuition fee may be authorized by the Registrar. When a rebate is allowed, it will be reckoned from the day upon which the Registrar receives written notice from the student.

Undue breakage

While no deposit is required of students to cover laboratory material and ordinary breakage, any unusual amount of breakage will be charged.

Acceptance fee. A student who has been notified that his application has been accepted should reply as early as possible stating whether or not he intends to matriculate. He may send with his letter of acceptance a check or money order for \$50 payable to Columbia University, to insure his place in the class. If accepted before January 1, he may request a postponement of payment of the acceptance fee until January 15. If accepted after January 1, he must notify the Dean and send his \$50 acceptance fee within two weeks after he has received his letter of acceptance. This acceptance fee will be retained by the University. If the applicant does not register for the courses for the following academic year, it will not be returned, unless the University for any reason cancels the acceptance. If the applicant registers at the School in the class to which he has been admitted, the amount of the acceptance fee will be credited to his tuition fees.

Renewal of application for a degree. An application for a degree, other than the several doctoral degrees, terminates at the next regular time for the issuance of diplomas subsequent to the date of filing; but under conditions prescribed by the faculty it may be subject to renewal for a fee of \$1.00 each time that a candidate chooses to come up for consideration.

Microscopes. All students entering the College of Physicians and Surgeons are required to provide themselves with microscopes of a satisfactory type. See page 55 for description and cost.

ESTIMATED EXPENSES FOR THE ACADEMIC YEAR

The following is an estimate of expenses of attendance at the College of Physicians and Surgeons for an academic year:

	<i>Average</i>	<i>Minimum</i>
Tuition and fees	\$1,188	\$1,188
Room	340	204
Board	650	600
Books and instruments*	200	150
Laundry	150	50
Personal expenses	350	250
TOTAL	\$2,878	\$2,442

* This figure does not include cost of microscope purchase. Required and recommended textbooks and equipment are listed on pages 54-56.

GENERAL INFORMATION

BARD HALL CLUB

Alumni and members of the staff of the College of Physicians and Surgeons are entitled to use the facilities of Bard Hall, the residence for medical students at 50 Haven Avenue, upon payment of the membership fee of \$10. The facilities include lounge rooms, dining and grillrooms, gymnasium, squash courts, and swimming pool. Application for membership and guest cards should be made at the Bard Hall desk.

STUDENT HEALTH SERVICE

Daily office hours are held by the Student Health Service for sick students in Room 2-200, Vanderbilt Clinic. Members of the Health Service are available to attend sick students who live near the Medical Center. Students requiring hospitalization will be taken care of either in the wards of the Medical Center or elsewhere under a hospitalization insurance policy.

UNIVERSITY PRIVILEGES

All students enrolled in the Medical School enjoy the privileges and facilities of the University campus, including access to the University libraries, gymnasium, Placement Bureau, and other activities.

REGISTRATION OF STUDENT ORGANIZATIONS

Student organizations may be granted the privileges of the use of names in which the name of the University is embodied or suggested and the use of University rooms for meetings and of bulletin boards for announcements only if they have filed their registration blanks, furnishing the Dean with lists of officers and other executive members, statements of purposes, copies of constitutions and bylaws, and information concerning the nature of any affiliation or connection with non-University organizations.

Blanks for the registration of student organizations, other than those for which the responsibility is assumed by a faculty or department of instruction, may be obtained from the Dean's office.

THE ALPHA OMEGA ALPHA HONORARY FRATERNITY

The Alpha Omega Alpha honorary fraternity is a nonsecret, fourth-year, medical honor society, membership in which is based upon scholarship and moral qualifications. A chapter was organized at the College of Physicians and Surgeons in 1907.

P&S CLUB

The P&S Club is now in its sixty-third year. During its long history it has concerned itself with the extracurricular activities of the medical students. It has enriched student life at P&S with its broad program of social, spiritual, athletic, and cultural activities. The program is carried out by more than twenty student committees under the full-time services of a director.

A faculty board of advisers assists the students and the director in the operation and support of the club program. Every matriculated student in the School of Medicine is automatically a member and is invited to participate in the pursuits of his choice.

ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS

Membership in the Alumni Association of the College of Physicians and Surgeons is open to any graduate of the College in good professional standing who will notify the Secretary, Dr. Frode Jensen, 630 West 168th Street, New York 32, N.Y., of his desire to join.

REGULATIONS

Students. Each person whose registration has been completed will be considered a student of the University during the term for which he is registered unless his connection with the University is officially severed by withdrawal or otherwise. No student registered in any school or college of the University shall at the same time be registered in any other school or college, either of Columbia University or of any other institution, without the specific authorization of the dean or director of the school or college of the University in which he is first registered.

Academic Discipline. The continuance of each student upon the rolls of the University, the receipt by him of academic credits, his graduation, and the conferring of any degree or the granting of any certificate are strictly subject to the disciplinary powers of the University, which is free to cancel his registration at any time on any grounds which it deems advisable. The disciplinary authority of the University is vested in the President in such cases as he deems proper, and, subject to the reserved powers of the President, in the dean of each faculty and the director of the work of each administrative board.

Honor Code. Academic and intellectual integrity are accepted principles in the medical profession. An Honor Code, created and administered by the student body, is the formal acknowledgment of this understanding at the College of Physicians and Surgeons. Each student is expected to abide by it.

Withdrawal. An honorable discharge will always be granted to any student in good academic standing and not subject to discipline who may desire to withdraw from the University; but no student under the age of twenty-one years shall be entitled to a discharge without the assent of his parent or guardian furnished in writing to the Dean. Students withdrawing are required to notify the Registrar in writing immediately.

The Dean may, for reasons of weight, grant a leave of absence to a student in good standing.

Requirements for Promotion. 1) A student may be advanced or readmitted to the second, third, or fourth academic year of the medical course or readmitted to the first year only upon recommendation of the faculty under which he has studied during the preceding year. 2) The Faculty of Medicine reserves the right to refuse readmission or promotion to any student who is believed for any reason to be unsuited to the conditions of study in this school.

Students are classified for readmission or promotion under the following headings:

- I. Recommended for advancement
- II. Recommended for readmission to the same class
- III. Recommended neither for advancement nor readmission
 - A. Because of academic failure
 - B. Because they fall under paragraph 2 of requirements for promotion

Grading of Students. The following grade equivalents are used: A, excellent; B, good; C, fair; F, work unsatisfactory.

Degree Requirements. The course for the degree of Doctor of Medicine consists of the subjects shown in the Summary of Studies on pages 25 and 26, all of which are required unless otherwise stated. Elective courses are not counted for credit toward the degree.

Diplomas for the following degrees are issued at Commencement, in October, and in February, upon completion of requirements: Doctor of Medicine, Master of Science in public health fields and in nursing, Master of Public Health, Doctor of Public Health, Doctor of Medical Science, and Bachelor of Science in nursing, physical therapy, and occupational therapy. Dates for the filing of applications for all these degrees are given in the Academic Calendar.

Bulletins of the School of Public Health and Administrative Medicine, the School of Nursing, and Courses in Physical and Occupational Therapy outline requirements for the respective degrees.

A student graduating from this medical school is eligible for admission to licensing examinations in all states and territories of the United States, providing he meets requirements for internship in those states requiring hospital experience before licensure. He is also eligible for admission to the examinations of the National Board of Medical Examiners.

FELLOWSHIPS, SCHOLARSHIPS AND PRIZES

FELLOWSHIPS

Bache. The Jules S. Bache Fellowship in obstetrics and gynecology, founded in 1945 by Mrs. Muriel Richards Pershing and Mrs. Dorothy Richards Hirshon, in memory of their grandfather, Dr. Jules S. Bache, is awarded to one or more graduate or undergraduate physicians who, in the judgment of the Professor of Obstetrics and Gynecology, are fitted to do special work in the field of obstetrics and gynecology.

Barnes-Foster. The Barnes-Foster Fellowship, established in 1950, is awarded to women graduate students for work in the field of gynecology. The value of the fellowship is about \$3,100.

Baruch. The Bernard M. Baruch Fellowship in physical medicine and rehabilitation is awarded annually to two or three graduate physicians for graduate study in the field of physical medicine and rehabilitation. The annual stipend is usually \$2,500 from the Bernard M. Baruch Gift to Columbia University.

Beekman. The Gerard Beekman Fellowship, founded in 1940 by The Beekman Family Association, is awarded annually. The value of the fellowship is about \$3,000.

Cutting. Two William Bayard Cutting Traveling Fellowships, founded in 1913 by Mrs. William Bayard Cutting in memory of her husband, William Bayard Cutting, LL.B., '71, A.M., '72, are awarded annually by the Trustees to men who have been in residence as graduate students and candidates for a higher degree under the Faculties of Political Science, Philosophy, or Pure Science for at least one academic year and to graduates of Columbia University in law, medicine, engineering, architecture, or music who have had at least one year of additional study as graduate students in this University. The usual stipend is about \$4,500.

Du Bois. The Dr. Abram Du Bois Fellowship, endowed by the two sons and the daughter of Abram Du Bois, M.D., Class of 1835, is open to a graduate of the College of Physicians and Surgeons who has given evidence of his serious intention to follow the subject of diseases of the eye as a specialty or to pursue studies in surgical pathology. The holder will devote his time to clinical and laboratory study of his subject at home or abroad. The value of the fellowship is about \$900, the annual income of the fund.

Eckhouse. The Minnie Eckhouse Fellowship in neurological surgery enables the holder to follow the study of neurological surgery after graduation.

Ellis. Two George W. Ellis Fellowships are awarded annually by the University Council to qualified graduates of any of the colleges of recognized rank in the state of Vermont. A holder of the fellowship who is a student in medicine may be eligible for reappointment for not more than three additional years. The value of each fellowship is about \$2,200.

Gay. The Frederick Parker Gay Memorial Fellowship for graduate work in bacteriology is awarded annually on the nomination of the chairman of the Department of Microbiology. The value of the fellowship is approximately \$2,000.

Gies. The William J. Gies Fellowship is awarded annually on the nomination of the chairman of the Department of Biochemistry. The appointment is made from among students who have prerequisites for admission to graduate study in biochemistry. The value of the fellowship is about \$1,800, the annual income of the fund.

Holt. The L. Emmett Holt Fellowship in pediatrics is awarded annually by the University Council to a student of the graduating class of any medical school, or to a graduate of not more than six years' standing, to enable the recipient to study the dis-

eases of children in this country or abroad. The value of the fellowship is about \$1,500, the annual income of the fund. The holder of the fellowship is eligible for the award for a second year, but no person may hold the fellowship for more than two years.

James. The Walter Belknap James Research Fellowship in medicine is awarded annually by the Trustees. It is open to graduates in medicine. The value of the fellowship is about \$2,500, the annual income of the fund. The holder of the fellowship must pursue advanced studies in medicine either at Columbia University or elsewhere.

Koplik. The Koplik Children's Scholarship is awarded every second year to the physician, under thirty years of age, who has shown special aptitude for original work in the investigation of the diseases of children. The value of the scholarship is about \$1,500, the annual income for two years of the fund.

Lambert. The Samuel W. and Elizabeth W. Lambert Traveling Fellowship, established in 1948, in memory of Samuel W. and Elizabeth W. Lambert, is awarded to a student who plans to specialize in surgery.

Proudfit. The Maria McLean Proudfit Fellowship, endowed by the late Alexander Moncrief Proudfit, A.B., '92, is open to any son of native-born American parents who shall pursue advanced studies in internal medicine and who shall, while enjoying such fellowship, remain unmarried. The appointment is made every four years. The value of the fellowship is about \$1,000, the income of the fund which has accrued during four years. It will be awarded next in 1961-1962.

Romaine. The DeWitt C. Romaine Fellowship for medical research in the College of Physicians and Surgeons was established in 1946 by the estate of C. Everetta Romaine.

Ryle. The Dorothy Ryle Research Fellowship for research in neurology was established in 1950 through the gift of Thorneycroft Ryle.

Tilney. The Frederick Tilney Memorial Fund Fellowship, endowed by the Frederick Tilney Memorial Fund, Inc., enables the holder to pursue research projects in the field of neurology as may be recommended from time to time by the chairman of the Department of Neurology in the College of Physicians and Surgeons, the Dean of the College of Physicians and Surgeons, and the President of the Board of Trustees of the Presbyterian Hospital.

Tucker. The Ervin Alden Tucker Fellowship in obstetrics, bequeathed by Mrs. Ervin Alden Tucker, enables the holder to follow the study of obstetrics after graduation. The value of the fellowship is about \$2,500, the annual income of the fund.

SCHOLARSHIPS

Scholarship aid is provided in varying amounts depending upon the need of the student. Such assistance is usually awarded only to civilian students who have high academic records and promise.

Applications for scholarships must be made not later than one month before the end of the academic year on blanks which will be furnished on request at the office of the Dean.

Scholarships are tenable for one academic year. Applications must be made in each year for which a scholarship is desired. Scholars will be required to pay the balance of the tuition fees and all the other fees.

Alumni. A limited number of national scholarships are provided by gifts from the P&S Alumni Association and other contributors.

Anonymous. The Anonymous Scholarships are awarded annually to qualified students from the income of a gift from an anonymous donor.

Banbury. The Banbury Scholarship Fund was created in 1955 to provide financial assistance for students enrolled in the College of Physicians and Surgeons.

Blumenthal. The George Blumenthal, Jr., Scholarships are maintained by the income of the George Blumenthal, Jr., Fund.

Buchman. The Dr. Moses R. Buchman Memorial Scholarship was established by friends of Dr. Buchman in 1957 to provide financial assistance to undergraduate medical students, especially those who are residents of Westchester and who indicate a desire to practice pediatrics.

Butler. The Richard Butler Scholarship, for the benefit of male students born in the state of Ohio, is open for competition to qualified candidates who propose to enter Columbia College, or any one of the Graduate Faculties of Political Science, Philosophy, and Pure Science, or any one of the professional schools of Law, Medicine, and Engineering. The scholarship is tenable for one academic year, with the possibility of renewal for two additional years.

Clark. The Alonzo Clark Scholarship, founded by the will of Alonzo Clark, M.D., LL.D., for many years President of the College of Physicians and Surgeons, is awarded annually.

Class of 1890. The Class of 1890 College of Physicians and Surgeons Scholarship Fund was given by a member of the Class of 1890, the income to be used annually for scholarship purposes.

Class of 1899. The Class of 1899 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1899 in commemoration of the thirty-fifth anniversary of their graduation, the income to provide a resident scholarship awarded annually.

Class of 1908. The Class of 1908 Gift was given on the fiftieth anniversary of the graduation of the class; the use of the income has not yet been determined.

Class of 1912. The Class of 1912 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1912 on the fifteenth anniversary of their graduation, the income to be used annually for scholarship purposes.

Class of 1920. The Class of 1920 College of Physicians and Surgeons Scholarship Fund was given by the Class of 1920 on the twenty-fifth anniversary of their graduation, the income to be awarded annually for scholarship purposes.

Class of 1933. The Class of 1933 Gift was established to create a scholarship room.

Class of 1953. The Class of 1953 College of Physicians and Surgeons Scholarship Fund was given by members of the class, the income to be used annually for scholarship purposes.

DeAngelis. The Anthony M. DeAngelis Scholarship Fund, established by Dr. Anthony M. DeAngelis, is available to a student of the fourth-year class.

Dennett. The Horace Dennett Scholarships are awarded annually to students in the third and fourth years whose records for ability and scholarship give evidence of special fitness and who need financial aid to obtain an education.

Devendorf. The David M. Devendorf Scholarship was given by Mrs. David M. Devendorf of Herkimer, New York, in memory of her husband, Dr. David M. Devendorf, Class of 1861. In awarding this scholarship, preference will be given to a qualified candidate from Herkimer County, New York, preferably to a candidate from the town of Herkimer.

Doughty. The Francis E. Doughty Scholarship was given by Miss Phoebe Caroline Swords in memory of Dr. Francis E. Doughty, Class of 1869.

Eichner. The Joseph Herman Eichner and Hannah Eichner Scholarship, founded in 1941 by the will of Benjamin Bernard Eichner, Class of 1919, is awarded annually.

George and Charlie. The George and Charlie Scholarship, created in 1942 in memory

of George Peters and Charles Costello by the Alumni Association of the College of Physicians and Surgeons, is awarded annually.

Hanlon. The John F. Hanlon Scholarship, established by members of the Class of 1951 in memory of their classmate, John F. Hanlon, is awarded annually.

Harsen. Five Jacob Harsen Scholarships are awarded annually from the income of a fund established by Jacob Harsen, M.D., in 1859. Two of these scholarships are awarded to students in the second year of the medical course, two to students in the third year, and one to a student in the fourth year.

Hartley. The Frank Hartley Scholarship was established in 1914 by friends and colleagues in memory of Dr. Frank Hartley, Class of 1880.

Hemingway. The William H. Hemingway Scholarships, covering tuition, are awarded annually.

Huber. The Francis Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from any institution other than Columbia University, the College of the City of New York, Barnard College, or Hunter College.

Huber. The Viola B. Huber Scholarship, provided by the income of a gift from Francis Huber, M.D., is awarded annually to a student from Hunter College.

Jacobi. Four Abraham Jacobi Scholarships are awarded annually from the income of a fund given by Francis Huber, M.D., in memory of Dr. Abraham Jacobi. Two are awarded to students from Columbia University and two others to students from the College of the City of New York.

McAneny. The Marjorie McAneny Scholarship is awarded annually from the income of a fund given by Francis Huber, M.D., to a student from Barnard College.

Markoe. The Francis Hartman Markoe Scholarship, established by Madeline Shelton Markoe in memory of her husband, is awarded annually.

Rappleye. The Willard Cole Rappleye Scholarship was established at the retirement of Dean Rappleye, the income of the fund to be used for scholarship aid.

St. John-Princeton. The St. John-Princeton Scholarship Fund was established in 1955 to provide financial assistance for graduates of Princeton who have been admitted to the College of Physicians and Surgeons.

Stewart. The Edgar Eginton Stewart, Jr., Memorial Scholarship, established by Dr. E. E. Stewart in memory of his son, is awarded annually.

Vosseler. The Theodore L. Vosseler Scholarships, given by Dr. Allison J. Vosseler, Class of 1933, in memory of his father, Dr. Theodore L. Vosseler, are awarded annually to qualified students, especially graduates of Colgate University.

Wechsler. The Robert M. Wechsler Scholarship, established by Dr. I. S. Wechsler in memory of his son, Robert M. Wechsler, Class of 1945, and by members of the Class of 1945 in memory of their classmate, is awarded annually.

Wilson. The Dr. James Lancelot Wilson Scholarship. In the words of the donor: "the income from this fund is to be awarded each year, without regard to race, creed or color, to a deserving male or female student suffering from ischemia of opportunity and finance; such student to be selected by the College of Physicians and Surgeons."

PRIZES

Coakley. The Coakley Memorial Prize is available for award annually by the Department of Otolaryngology to the student who, in the opinion of the Professor of Otolaryngology, has done the best work in the field for the current year. The value of the prize is \$200.

Cock. The Thomas F. Cock, M.D., Prize is available for award annually at Commencement to the student in the College of Physicians and Surgeons who submits the best thesis on puerperal fever. The value of the prize is about \$70, the annual income of the fund bequeathed by Augustus C. Chapin.

Gay. By gift there was established, in 1948, by Mrs. Frederick Parker Gay, the Frederick Parker Gay Memorial Award in memory of her husband. The award is to be given annually to a student doing outstanding work in microbiology, who is chosen by the Executive Officer of the Department of Microbiology and the Dean of the Faculty of Medicine. The annual amount of the award is about \$30.

Janeway. The Janeway Prize is available annually for award to the student graduating from the College of Physicians and Surgeons who, in the opinion of the Faculty, has ranked highest in efficiency and ability. The value of the prize is about \$50, the annual income of the fund bequeathed by Matilda S. J. Wisner.

Meierhof. The Dr. Harold Lee Meierhof Prize, founded by the parents of Dr. Harold Lee Meierhof, Class of 1917, is available for award annually by the Professor of Pathology to the student who, in the opinion of the Professor of Pathology, has done the best work in the field for the current year. The value of the prize is about \$50, the annual income of the fund.

Parker. The Joseph Garrison Parker Award is given annually to that senior student in the College of Physicians and Surgeons who best exemplifies through a continuation of his or her personal interest and activities in art, music, literature, or the public interest, the fact that Living and Learning go together. The award is made possible by a gift from Dr. and Mrs. Philip Parker in memory of their son, Joseph, P&S 1948, whose promising career in medicine was cut short by death in 1953, but in whose life the love of music and the arts was a constant source of inspiration.

Smith. The Joseph Mather Smith Prize is available for award annually to the graduate of the College of Physicians and Surgeons whose essay or original research in medical subjects is deemed by the Committee of Award to be the most meritorious. The value of the prize is about \$260, the annual income of the Joseph Mather Smith Prize Fund.

Stevens Triennial. The Stevens Triennial Prize is available for award triennially to the person, not necessarily a graduate of the College of Physicians and Surgeons, who submits the best essay or original research on any medical subject. The value of the prize is about \$200, the income of the fund.

Watson. By gift there was established in 1921 the Dr. William Perry Watson Foundation in Pediatrics, the annual income of which is awarded to the member of the graduating class showing the most efficient work in the study of the diseases of infants and children during his or her regular course at the College. The value of the prize is about \$260. Only students who have been in attendance at the College for at least two years are eligible.

STUDENT LOANS

Loan funds are provided in a limited amount for the assistance of students, but it is the general policy to grant loans only to students who have satisfactorily completed at least one term of residence at the University. Application is made on a blank which may be obtained from the offices of the Dean or of the Bursar. Applications for the autumn term should be filed by September 1; for the spring term, by December 1.

Students who are legal residents of New York State are eligible for loans through the New York State Higher Education Assistance Corporation. Application forms and instructions are issued by the Dean's office or the Bursar's office.

In memory of John Adams Mahew, Class of 1955, limited funds are available periodically for loans to medical students in emergencies. These were given primarily by classmates and friends and are administered by the Dean.

STUDENT EMPLOYMENT

The Dean's office will assist in obtaining suitable positions for medical students and graduates who are in need of employment. A list of the available positions for medical students is maintained. Because of the heavy schedule of the Medical School it is difficult for medical students to undertake part-time work outside the Medical Center during the academic year and, so far as feasible, other financial arrangements should be made.

GRADUATE MEDICAL EDUCATION

Opportunities for medical training beyond the undergraduate level are offered in Columbia University in two major programs. The graduate program is concerned with the training of specialists by means of hospital residencies. It is presented generally in direct continuity with sound, basic medical education, including a hospital internship which is now regarded as a part of that preparation. The postgraduate program, on the other hand, provides for the continued education of physicians in practice, and is particularly designed to enrich their preparation to meet their responsibilities to patients and the public.

THE GRADUATE PROGRAM

The program includes training opportunities through fellowships at the College of Physicians and Surgeons and residencies in affiliated hospitals. Proper training for specialization includes three major elements: Primarily it provides a sufficiently long clinical experience as a resident in a hospital equipped and staffed to provide graded responsibilities under supervision of experts in the field of medicine selected. In the second place it disciplines the resident in scientific attitudes toward health and disease and enriches his clinical experience with advanced training in those medical sciences concerned largely with the field of his particular interest. Finally, it provides, either in the residency experience or in a fellowship status, the opportunity to do basic or clinical research. This in turn may stimulate the type of scientific productivity worthy of recommendation for registration toward the degree of Doctor of Medical Science.

The University confers the Doctor of Medical Science (Med.Sc.D.) degree upon a few physicians who have a particular interest and competence in one of the basic science fields. Only members of the staff of the Columbia-Presbyterian Medical Center are eligible for this degree. A minimum of one year of full-time work in the selected basic science field is required. Additional requirements include passing a comprehensive examination, completion of a significant and original research project, submission of a dissertation, and passing an oral examination. Further information about the degree can be obtained from the departmental chairman or from the Dean's Office.

THE POSTGRADUATE PROGRAM

A variety of short courses have been organized in hospitals and clinics affiliated with the University. Those for the general practitioner furnish opportunities for him to overcome deficiencies in his earlier training, to get abreast of new knowledge and the latest methods of diagnosis, treatment, and prevention which he can use in his practice, and to learn the indications, limitations, and value of those technical procedures which require the attention of a qualified specialist. The instruction consists largely of first-hand clinical experience, demonstrations, and discussion.

For those already practicing a specialty, advanced instruction is given in the therapeutic and diagnostic methods of certain limited fields of practice. Enrollment is restricted to those who may reasonably be regarded as prepared to benefit by the advanced instruction.

Short courses are available at the chest service of Bellevue Hospital, the Columbia-Presbyterian Medical Center, Montefiore Hospital, Mount Sinai Hospital, and the Hos-

pital for Joint Diseases. No University credit or certificates are granted for the short courses.

Further information regarding graduate and postgraduate training may be obtained by addressing the Dean of the Faculty of Medicine, Columbia University, 630 West 168th Street, New York 32, N.Y.

PLAN OF UNDERGRADUATE INSTRUCTION

The program is designed to give the student opportunities to acquire a working knowledge of the sciences basic to medicine and to help him master the techniques of approach to medical problems. The first two years are occupied largely with the study of the basic sciences: anatomy, physiology, biochemistry, microbiology, pharmacology, and pathology. However, even in the first year, through the instruction in the basic sciences and especially in the course in psychiatry and in a series of correlative clinics, the students become aware that the welfare and care of the patient lie at the heart of the instructional program.

The third and fourth academic years are largely clinical. Here the student continues his efforts to increase his skills in diagnosis and in the treatment of patients under close supervision and to acquire as broad a knowledge of disease patterns as possible. The clerkships in medicine, pediatrics, psychiatry, obstetrics, and surgery are emphasized.

Throughout the entire course an effort is made to correlate the different phases of medical learning by means of "correlative" and "combined" clinics. The interdepartmental cooperation in these efforts is designed to demonstrate that the same essential problems are met in the various disciplines and to encourage the student to regard the study of medicine as a single united effort, rather than as a series of isolated branches of learning.

An attempt is made to individualize instruction and to place responsibility, as far as is practical, upon the student for the care of the patient and for his own education. This is accomplished by conferences and clinical clerkships, and by teaching students in small groups at the bedside through application of the case method of instruction. The importance of some efforts at original investigation on the part of the student is stressed. Students are encouraged to engage in some definite research project during their undergraduate years, and they may arrange in their third- and fourth-year programs to enable them to do full-time research for periods as long as six months. If a student has made outstanding progress in his research, arrangements may be made for him to spend a full year, preferably between the second and third years, to pursue his original investigation. It is the policy of the faculty to keep the program of instruction flexible so that the interests of the individual student may best be served.

The preparation of the student is designed to enable him to continue his education in the hospital internship and residency programs, in graduate studies in the specialties, in his practice of medicine, or in other fields of medical endeavor.

<i>First Year</i>		HOURS
<i>Anatomy 101FS</i>	Microscopic anatomy	158
<i>Anatomy 102ST</i>	Systematic human anatomy	276
<i>Anatomy 103FS and Public Health 201</i>	Embryology—statistics—genetics	82
<i>Anatomy 106S</i>	The nervous system	160
<i>Biochemistry 101F</i>	Introductory biochemistry	168
<i>Physiology 101TFo</i>	Human physiology	154
<i>Psychiatry 101FST</i>	Introduction to human behavior	30
<i>Pathology</i>		44
TOTAL		1,072

<i>Second Year</i>		HOURS
<i>Medicine 101T</i>	Elementary physical diagnosis	99
<i>Medicine 102S</i>	Elementary clinical pathology	88
<i>Medicine 103T</i>	Introduction to medicine	10
<i>Medicine 104T</i>	Introduction to experimental medicine	8
<i>Microbiology 101F</i>	General microbiology	158
<i>Microbiology 105F</i>	Infection, immunity, etc.	52
<i>Neurology 101T</i>	Neurological examination	20
<i>Pathology 101FST</i>	General and special pathology	309
<i>Pathology 102S</i>	Neuropathology	36
<i>Pharmacology 101ST</i>	General and special pharmacology	131
<i>Psychiatry 102S</i>	Psychopathology	20
<i>Public Health 101T</i>	Parasitic diseases	51
<i>Public Health 101F</i>	Epidemiology; public health control	11
<i>Surgery 101S</i>	Introduction to surgery	12
<i>Surgery 102T</i>	Principles of surgery	60
TOTAL		1,065

<i>Third Year</i>		
<i>Dermatology 203-204</i>		34
<i>Medicine 201-202, 203-204, 205-206</i>		447
<i>Neurology 207-208, 209-210</i>		38
<i>Obstetrics and Gynecology 201-202</i>		56
<i>Ophthalmology 201-202, 203-204</i>		42
<i>Orthopedic Surgery 201-202, 203-204</i>		80
<i>Otolaryngology 201-202, 203</i>		40
<i>Pediatrics 201-202, 207-208</i>		208
<i>Psychiatry 203-204</i>		147
<i>Public Health 203-204</i>		76
<i>Radiology 201-202, 206</i>		24
<i>Surgery 201-202, 204-205, 211-212</i>		219
Electives		385
TOTAL		1,796

<i>Fourth Year</i>		
<i>Dermatology 205-206</i>		28
<i>Medicine 205-206, 207-208, 209-210, 221-222, 223-224, 225-226</i>		465
<i>Neurology 202</i>		30
<i>Obstetrics and Gynecology 203-204</i>		280
<i>Orthopedic Surgery 205-206</i>		24
<i>Pediatrics 203-204</i>		140
<i>Pharmacology 202</i>		16
<i>Psychiatry 205</i>		15
<i>Public Health 205</i>		16
<i>Radiology 203-204</i>		16
<i>Surgery 209-210, 213-214, 217-218, 219-220</i>		292
<i>Urology 201-202</i>		36
Electives		280
TOTAL		1,638

COURSES OF INSTRUCTION

For purposes of instruction the first academic year is divided into four periods; the second into trimesters; the third into quarters; and the fourth into six periods.

The academic year for the first- and second-year classes is approximately nine months in length. The third and fourth years are twelve months in length.

Elective courses are arranged so that students may continue, supplement, or vary the work done in the prescribed courses. The students may arrange for elective courses at the beginning of any period and will be held responsible for attendance and the successful passing of examinations. Specially qualified students of the fourth-year class, upon nomination by the head of a department and with the permission of the Committee on Instruction, may substitute elective courses or research in that department for certain prescribed courses.

All students other than those regularly matriculated for the degree of Doctor of Medicine must secure permission from the instructor in charge before registering for any course.

After the completion of the first year, a student may apply to register for a full year of research in lieu of proceeding with the next regularly assigned academic year. At the completion of his research he enters the academic year for which he is qualified and continues in course toward the M.D. degree.

The Faculty reserves the right to make changes in the program of studies and courses of instruction at any time.

ANATOMY

Professors: W. M. Copenhaver (*acting chairman*), F. A. Mettler (*Neurology*), M. R. Murray (*Surgery*), A. E. Severinghaus (*associate dean*), G. K. Smelser (*Ophthalmology*)

Associate Professors: F. J. Agate, M. B. Carpenter, H. O. Elftman, C. A. Noback

Associate Professor of Dental Anatomy: E. Applebaum (*Dental and Oral Surgery*)

Associate Clinical Professor: E. B. Kaplan

Assistant Professors: C. A. Ely, D. D. Johnson, M. L. Moss, G. D. Pappas, W. M. Rogers, S. C. Shen

Associates: E. A. MacDowell, E. A. Manginelli

Instructors: J. V. Gazzola, H. Gladstone, B. W. Glick, J. S. Harrison, O. Hase, H. P. Levy (*Dental and Oral Surgery*), J. K. Littman

Assistants: E. M. Jacoby, G. I. Kaye, M. C. Miksic

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Anatomy 101FS—Microscopic anatomy. Lectures, conferences, and laboratory. First year. 6 pts. Professors Copenhaver, Johnson, Pappas, Shen, Smelser, and assistants.

Anatomy 102FST—Systematic human anatomy. Lectures, conferences, and laboratory. First year. 12 pts. Professors Agate, Elftman, Ely, Moss, and assistants.

Anatomy 103FS—Statistics-genetics-embryology. First year. Interdepartmental course. 4 pts.

Lectures, demonstrations, and laboratory work correlating statistics, genetics, embryology, and adaptations at birth, as they relate to principles of human development.

Anatomy 106ST—The structure and function of the nervous system. First year. An interdepartmental course. 6 pts. Professors Carpenter and Noback (*Anatomy*), Rittenberg

(*Biochemistry*), Merritt (*Neurology*), Root and Nastuk (*Physiology*), and Kolb (*Psychiatry*).

Lectures, demonstrations, and laboratory.

SUMMER SESSION 1959

Anatomy s101—Introduction to human anatomy. 6 pts. Professor Elftman and assistant.

Anatomy s107—Histology. 6 pts. Professor Noback and assistant.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

ANESTHESIOLOGY

Professor: E. M. Papper (*chairman*)

Associate Professors: B. R. Fink, M. J. Frumin, S. H. Ngai

Assistant Professors: L. Brand, R. M. Epstein, E. C. Hanks, J. Henley, J. Kreiselman, V. Lauderdale, H. Rackow, E. Salanitro, H. Schwartz, C. C. Wycoff

Associates: M. M. Kritchman, F. Moya, R. W. Patterson, C. Sanger

Instructors: D. C. Brody, H. J. Cordner, S. M. Schnider, S. N. Steen

BIOCHEMISTRY

Professors: E. Chargaff, Z. Dische (*Ophthalmology*), S. Graff, M. Karshan (*Dental and Oral Surgery*), K. Meyer (*Medicine*), D. Nachmansohn (*Neurology*), D. Rittenberg (*chairman*), D. Shemin, W. M. Sperry (*Psychiatry*), D. B. Sprinson, H. B. Waelsch (*Psychiatry*)

Associate Professors: S. Lieberman (*Obstetrics and Gynecology*), B. W. Low, I. B. Wilson (*Neurology*), S. Zamenhof

Assistant Professors: I. Clark (*Orthopedic Surgery*), M. A. Eisenberg, P. Feigelson, H. B. Gillespie, E. Hirschberg (*Medicine*), A. I. Krasna, A. Lajtha (*Psychiatry*), I. Mandl, H. Meltzer (*Psychiatry*), S. L. Miller, T. D. Price (*Urology*), H. S. Simms (*Pathology*), S. Solomon (*Obstetrics and Gynecology*), P. Srinivasan, B. Weiss (*Psychiatry*)

Assistant Professor of Medicine: A. Freedman

Associates: G. Alexander (*Psychiatry*), E. Borek, G. Cohen (*Psychiatry*), J. A. Dain, I. Goodwin (*Surgery*), O. R. Gabriel, W. Halpert, P. E. Hochstein (*Medicine*), P. Hoffman (*Medicine*), H. C. Lawler (*Neurology*), A. Linker (*Medicine*), M. E. Lombardo (*Urology*)

Associate in Medicine: G. B. Phillips

Research Associates: M. Berger (*Psychiatry*), I. J. Borowitz, G. Brawerman, D. D. P. Clarke, D. H. Clouet, I. Danishefsky, S. Ehrenpreis (*Neurology*), S. Greer, F. C. G. Hoskin (*Neurology*), M. J. Mycek, C. Pallavicini, A. Rosenberg, H. Shapiro, I. Sucher, W. Traub, P. E. Zimmering

Instructor: K. S. McCarty

Special Lecturer: H. H. Storch

At Bellevue Hospital:

Associate: A. M. Briscoe (*Medicine*)

At Goldwater Memorial Hospital:

Professor: F. E. Kendall (*Medicine*)

Assistant Professors: L. L. Abell (*Medicine*), E. H. Mosbach (*Medicine*)

Associate: M. M. Daly (*Medicine*)

Research Associate: J. Blum (*Medicine*)

At Mary Imogene Bassett Hospital:

Associate: T. Peters, Jr. (*Medicine*)

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 101Fo—Introductory biochemistry. Three hours lecture and twelve hours laboratory a week for fourteen weeks. First year. 8 pts. The staff.

Special reference to the animal organism.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Biochemistry 111FFo—Correlative clinics in anatomy, biochemistry, and physiology. First year. Professor Loeb (*from Medicine*) in charge. See *Anatomy 114FFo*.

Biochemistry 211-212—Special methods of biochemistry. Eligibility and hours to be determined on consultation. The staff.

A study and discussion of biochemical methods. Intended to prepare the student for research or for practical application of the subject of biochemistry.

Biochemistry 215-216—Research in biochemistry. Eligibility to be determined on consultation. The staff.

Biochemistry 228—Energetics and kinetics of enzyme action. Two hours. 3 pts. Professor Wilson and staff.

The application of the principles of thermodynamics and kinetics to problems of enzyme action.

Biochemistry 231-232—The biochemistry of the complex cellular constituents. 3 pts. The staff. W. 1-3.

Prerequisite: elementary biochemistry and organic chemistry, and the permission of the department.

This course will treat one of the following topics at an advanced level for an entire term: (a) the biochemistry of the proteins; (b) the biochemistry of the nucleic acids; (c) the biochemistry of the polysaccharides. In each case the chemistry, biogenesis, and biological action of the compounds will be discussed.

Biochemistry 301-302—Seminar. No credit. Open to all students in the University.

The members of the teaching staff, candidates for the degree of Doctor of Philosophy, and all other investigators in the department meet weekly to discuss results of recent researches in biochemistry.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

DERMATOLOGY

Professor: C. T. Nelson (*chairman*)

Associate Professor of Clinical Dermatology: B. M. Kesten

Associate Clinical Professors: L. P. Barker, G. F. Machacek, J. L. Miller

Assistant Professors: M. Silva, G. K. Steigleder

Assistant Clinical Professors: H. O. Curth, A. N. Domonkos, T. Rosenthal

Associates: B. J. Chester, W. Curth, F. P. Lowenfish, L. Schweich

Instructors: B. Dobias, R. M. Montgomery, C. F. Post, M. H. Slatkin, M. B. Sloane

Assistants: M. Brodey, J. Eisert, J. T. Hearin, S. L. Sanders

At Mt. Sinai Hospital:

Associate Clinical Professor: S. M. Peck

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 203-204—Dermatology and syphilology. Two introductory lectures and one symposium on common dermatoses to the class and ten demonstration sessions of three hours each to sections. Third year. Professors Barker and Nelson, and associates. At Vanderbilt Clinic.

Dermatology 205-206—Dermatology and syphilology. Seven hours a week for one month. Fourth year. Professors Miller and Nelson, Drs. Chester, Hearin, and associates.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Dermatology 101T—Medical mycology. Eight hours per week for twelve weeks. 3 pts. Professor Silva.

Hours to be arranged.

Given in collaboration with *Microbiology 118T*.

Dermatology 207-208—Outpatient clinic clerkships. Five afternoons a week for one month. Third and fourth years. Members of the staff.

Dermatology 219-220—Histopathology of the skin. Professor Machacek.
Hours to be arranged.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

MEDICINE

Samuel Bard Professor: R. F. Loeb*

Professors: S. E. Bradley (*chairman*), A. Gellhorn (*Delafield Hospital*), F. M. Hanger, Jr., Y. Kneeland, Jr., G. A. Perera, J. V. Taggart

Professor of Biochemistry: K. Meyer

Professors of Clinical Medicine: C. Ragan, J. C. Turner

Clinical Professors: F. R. Bailey, A. L. Barach, H. Southworth

Clinical Professor of Psychiatry: G. E. Daniels

Associate Professor: A. P. Fishman

Associate Professors of Microbiology: C. Howe, C. Morgan

Associate Professors of Clinical Medicine: C. A. Flood, J. W. Jailer (*Obstetrics and Gynecology*), S. C. Werner

Associate Clinical Professors: S. W. Lambert, W. B. Sherman

Assistant Professors: A. Freedman (*Biochemistry*), A. I. Knowlton, D. L. Larson, P. A. Marks, E. F. Osserman, D. Schachter, D. F. Tapley

Assistant Professors of Biochemistry: P. Feigelson, E. Hirschberg

Assistant Professors of Medical Social Work: B. E. Judkins, E. R. Pritchard

Assistant Professors of Clinical Medicine: H. Aranow, J. M. Baldwin, Jr., S. W. Cos-

* On leave.

griff, F. E. Demartini, A. R. Lamb, Jr., J. H. Laragh, K. L. Pines, C. H. Plimpton, H. M. Ranney

Assistant Clinical Professors: H. G. Bruenn, G. A. Carden, C. J. Dalton, R. B. Duane, Jr., C. D. Dunham, S. C. Fisk, M. J. Lepore, P. C. Lloyd, T. B. Russell, H. B. Wilcox, Jr.

Associates: G. P. Bradley, N. P. Christy, A. W. Grokoest, H. O. Heinemann, H. H. Holmes, G. A. Hyman, E. Leifer, R. B. McKittrick, G. W. Melcher, I. Mufson, G. B. Phillips (*Biochemistry*), G. M. Turino, H. O. Wheeler

Associates in Biochemistry: P. E. Hochstein, P. Hoffman, A. Linker

Research Associate: R. Grinberg

Instructors: S. F. Alexander, C. Alston, H. M. Anderson, A. T. Baker, G. J. Beck, R. M. Carey, C. K. Christian, H. P. Colmore, N. J. Conan, Jr., C. Gerbi, G. C. Hennig, D. A. Holub, J. I. Kitay, R. A. Kritzler, R. N. Lamont-Havers, K. A. McClane, G. H. McCormack, Jr., W. M. Manger, J. A. L. Mathers, J. I. Meltzer, E. Middleton, Jr., H. W. Neuberg, E. R. Pons, Jr., A. Sahagian-Edwards, R. J. Stock, T. L. Tyson, J. E. Ultmann, C. R. Wise, E. A. Wheaton, Jr., J. L. Zeffren

Instructor in Medical Social Work: N. Fike

Assistants: J. J. Barlow, J. W. Barry, J. T. Beatty, J. L. Berg, E. H. Bergofsky, E. M. Bramwell, A. L. Brewer, J. A. Coss, Jr., J. Van B. Dean, H. W. Doyle, S. Dvoskin, D. Estes, W. H. Franklin, A. Gibson, C. R. Hulse, P. K. Johnson, D. M. Kanter, M. L. Marinovich, R. Noble, T. Richter, A. I. Snyder, C. J. Tyson, C. A. Vicens, J. A. Woods, B. M. Wright

At Mary Imogene Bassett Hospital:

Clinical Professor: J. Bordley III

Associate Clinical Professors: J. W. Ferrebee, E. D. Thomas

Assistant Clinical Professor: F. F. Harrison

Associate in Biochemistry: T. Peters, Jr.

Instructors: J. C. Mithoefer, W. H. Mook, E. D. Rames

At Bellevue Hospital:

Samuel W. Lambert Professor: D. W. Richards

Professor: A. F. Cournand

Clinical Professors: M. Dinnerstein, K. J. Thomson

Associate Professors: J. M. Jones, J. H. McClement

Associate Professor of Clinical Medicine: M. I. Ferrer

Associate Clinical Professors: C. R. Gross, H. McL. Riggins

Assistant Professors: W. A. Briscoe, H. W. Fritts

Assistant Professor of Clinical Medicine: R. Harvey

Assistant Clinical Professors: J. L. Leland, W. H. Stearns

Associates: O. S. Baum, M. E. Campbell, H. H. Coppersmith, W. R. Cunnick, Jr., L. H. Hellstrom, H. M. Hicks, A. Hoff, P. Wermer, C. H. Whitney

Associate in Biochemistry: A. M. Briscoe

Instructors: E. Alpert, R. F. Alsop, E. Bauman, H. J. Brown, H. S. Collins, R. J. Conroy, A. Davis, J. R. Edsall, B. B. Eichler, H. Fong, B. B. Garthwaite, B. J. Handler, H. Kuschner, F. S. Lansdown, J. V. Lichtenstein, D. J. O'Leary, H. Perrone, A. W. Phillips, H. G. Shaffeld, W. J. Sheils, D. G. Simpson, M. B. Smith, J. M. Sprague, A. M. Tunick

Assistants: S. C. Alexander, H. S. Ballard, L. L. Davis, J. C. DiJohn, L. Fishel, D. L. Hartman, S. N. Heller, J. I. Meltzer, A. Minzter, C. R. Ream, C. S. Yongue

Lecturers: M. Kuschner, W. E. Loring

At Goldwater Memorial Hospital:

Professor: D. Seegal
Professor of Biochemistry: F. E. Kendall
Clinical Professor: A. J. Patek, Jr.
Associate Professors: Q. B. Deming, A. R. Wertheim
Associate Clinical Professors: H. Bickerman, A. Steiner
Assistant Professor: D. Rudman
Assistant Professors of Biochemistry: L. L. Abell, E. H. Mosbach
Associates: H. Colcher, A. W. Feinberg, H. Lax
Associate in Biochemistry: M. M. Daly
Research Associate in Biochemistry: J. Blum
Instructor: L. A. Scarrone
Assistants: C. M. Dennehy, J. G. Edreira, J. S. Idriss, A. Sakamoto, E. Schmatolla

At Montefiore Hospital:

Clinical Professor: L. Leiter
Associate Clinical Professors: S. P. Schwartz, L. E. Siltzbach
Assistant Clinical Professors: H. Gross, A. Jezer, S. Melamed, J. B. Schwedel, I. D. Stein, B. Weingarten
Lecturers: R. S. Aaron, J. Ballinger, M. L. Brown, W. Chester, M. Dolgin, A. S. Dooneief, C. D. Enselberg, D. J. W. Escher, M. Friedenson, E. Goldberger, B. E. Jacobson, H. I. Lippman, H. Mark, H. Rifkin, M. Rodstein, I. L. Rubin, B. Scholder, V. Silvestri, L. Spiegel, L. Tarr, A. Weiss, R. E. Weston, D. Young

At Mt. Sinai Hospital:

Professor: A. B. Gutman
Associate Clinical Professors: C. K. Friedberg, S. Silver
Assistant Clinical Professors: D. Adlersberg, W. M. Hitzig, H. Horn, H. D. Janowitz, M. Mendlowitz, C. B. Rabin, L. R. Wasserman, T. F. Yu
Associates: M. F. Levitt, F. Schaffner
Instructors: M. E. Bader, R. A. Bader
Lecturers: S. Dack, I. E. Gerber, H. L. Jaffe, F. H. King

At Roosevelt Hospital:

Associate Clinical Professors: A. J. Antenucci, J. M. Freston
Assistant Clinical Professors: N. S. Brown, G. Taylor
Associate: W. H. Button, Jr.
Instructors: G. A. Covo, I. A. Jaffe
Assistant: A. C. Santy

At St. Luke's Hospital:

Associate Clinical Professors: G. J. Coffin, T. B. Van Itallie
Assistant Clinical Professors: J. G. Hilton, O. R. Jones, W. J. Pyles
Associates: C. G. Adsit, A. L. L. Bell, J. H. Keating, Jr., F. J. Schilling
Instructors: R. Case, J. Feltman, R. P. Keating

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 101T—Elementary physical diagnosis. Eight hours a week for ten weeks. Second year. No pts. Professor Kneeland and associates.

Medicine 102S—Elementary clinical pathology. Eight hours a week for eleven weeks. Second year. 2 pts. Professor Turner and associates.

This course consists of instruction in the technique of blood-counting, etc., and systematic instruction in the various chemical and microscopical methods.

Medicine 103T—Introduction to experimental medicine. Two hours a week for four weeks. Second year. No pts. Professor Bradley.

Medicine 104T—Introductory medicine. One hour a week for ten weeks. Second year. No pts. Professor Bradley.

Medicine 201–202—Ward clinical clerkship in medicine. Eleven weeks. Third year. Professor Perera in charge.

Medicine 203–204—Medical lectures. One hour a week for twenty-eight weeks. Third year. Professor Tapley and associates.

A series of lectures or clinics devoted to important problems of internal medicine. Approximately half of these lectures are assigned to outstanding students of the fourth-year class for presentation to third-year students, with a member of the faculty orienting discussion.

Medicine 205–206—Combined clinics. One and a half hours a week for thirty weeks. Third and fourth years. Professor Cross and associates.

Medicine 207–208—Outpatient clinical clerkships (group clinic). Combined with *Surgery 209–210*. Two months. Fourth year. Professor Lamb in charge.

Medicine 209–210—Medical therapeutics and applied pharmacology. Sixteen lectures. Fourth year. Third-year elective. Professor Southworth in charge.

Practical management, including home care, of major medical problems, with a review of the pertinent pharmacology. See *Pharmacology 202*.

Medicine 221–222—Clinical clerkships on the wards at Bellevue Hospital. Fourth year. Professor Richards and associates.

Medicine 223–224—Clinical clerkships in chronic diseases of the chest at Bellevue Hospital. Fourth year. Professor McClement and associates.

Medicine 225–226—Medical and surgical conferences at Bellevue Hospital. Fourth year. Professors Richards and Lewis (*from Surgery*) in charge.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Medicine 227–228—Special clinics at Presbyterian Hospital. Third and fourth years.

Morning Clinics:

- A. *Diabetes*. M. W. F. Floor 2. Limited to six students each morning. Professor Pines.
- B. *Thyroid*. F. Floor 10. Limited to six students. Professors Werner and Aranow.
- C. *Nephritis and hypertension*. Tu. Floor 2. Limited to four students. Professor Bradley.

Afternoon Clinics:

- D. *Allergy*. M. Tu. Th. F. Floor 10. Limited to two students each morning. Professor Sherman.
- E. *Cardiac*. F. Floor 10. Professor M. I. Ferrer.
- F. *Arthritis*. W. F. Floor 10. Limited to four students daily. Professor Ragan.

G. *Combined endocrine*. Tu. Floor 3. Limited to six students. Professor Werner and associates.

H. *Gastrointestinal*. M. W. F. Floor 3. Limited to two students daily. Professor Flood.

Students desiring elective work in these clinics should make application one week before the beginning of the quarter to the secretary of the Department of Medicine. The third-year clinical clerkship in medicine is prerequisite for these elective courses. Assignments are announced three days before the beginning of the quarter.

Medicine 229-230—Differential diagnosis. Fourth year. Professor Hanger.

In this course abstracts of histories are distributed before the exercises and the diagnosis is handed to the instructor. The diagnosis is known neither to student nor instructor. There is a discussion of the diagnosis and pathological material is presented.

Medicine 231-232—Research in medicine. Under the direction of Professor Bradley.

This course is open to qualified workers, who may pursue research in the clinical laboratories of the Department of Medicine.

Medicine 235-236—Elective clinical clerkship. Two months. Fourth year.

The student elects a combined medicine and surgery clerkship in one of the following hospitals: Roosevelt, St. Luke's, Mary Imogene Bassett, or Goldwater (straight medical clerkship).

ELECTIVE COURSES IN MEDICINE

Medicine 237—Elective course in cardiorespiratory physiology. Fifteen lectures, all classes. Professors Cournand and Richards.

MICROBIOLOGY

John E. Borne Professor of Medical and Surgical Research: H. M. Rose (*chairman*)

Professors: E. A. Kabat (*Neurology*), B. C. Seegal

Professor of Bacteriology: C. W. Jungeblut

Associate Professors: S. M. Beiser, B. F. Erlanger, G. C. Godman, S. P. Halbert (*Ophthalmology*), C. Howe (*Medicine*), C. Morgan (*Medicine*), S. W. Tanenbaum

Assistant Professors: S. A. Ellison, A. W. Knox, E. Y. L. Lasfargues

Assistant Professor of Biochemistry: I. Mandl

Associates: E. W. Bassett, P. Breitenfeld, K. C. Hsu, D. Locatcher-Khorazo (*Ophthalmology*), G. Schiffman (*Neurology*)

Research Associates: A. D. Deitch, C. Morris, I. M. Mountain*

Assistants: P. E. Brenneisen, W. Cohen

Lecturer: M. Holden

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 101F—General medical microbiology and immunology. Thirteen hours laboratory, conferences, and demonstrations. Second year. 6 pts. Members of the staff.

This course consists of informal discussions, problems, demonstrations, and laboratory work.

Microbiology 105F—The principles of microbiology, immunology, epidemiology, and the specific diagnosis and therapy of infectious diseases. Six hours lecture and demonstrations. Second year. 3 pts. Members of the staff.

* On leave.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Microbiology 118T—Medical mycology. See *Dermatology 101T*.

Microbiology 251FST—Research in problems of immunology and immunochemistry. Laboratory. 2 to 6 pts. each trimester. Under the direction of the staff. Hours to be arranged.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

NEUROLOGICAL SURGERY

Professor: J. L. Pool (chairman)

Professor of Clinical Neurological Surgery: J. E. Scarff

Clinical Professor: F. Cramer

Associate Professor: D. P. Purpura

Associate Professor of Clinical Neurological Surgery: L. A. Mount, J. Ransohoff

Assistant Professor: J. B. Campbell

Assistant Professor of Clinical Neurological Surgery: E. B. Schlesinger

Associate: T. J. Bridges

Instructors: J. W. Correll, E. M. Housepian

Assistants: S. A. Jacobson, J. G. McMurtey, C. W. Simpson

At Bronx Veterans Administration Hospital:

Clinical Professor: E. Krueger

NEUROLOGY

Professor: H. H. Merritt (chairman)

Professor of Neuropathology: A. Wolf

Professor of Anatomy: F. A. Mettler

Professor of Biochemistry: D. Nachmansohn

Professor of Microbiology: E. A. Kabat

Visiting Professor: F. G. Bergmann

Associate Professors: H. Grundfest, P. F. A. Hoefer

Associate Professors of Clinical Neurology: S. Carter, D. Sciarra, C. T. Vicale, M. D. Yahr

Associate Professor of Biochemistry: I. B. Wilson

Associate Professor of Neuropathology: D. Cowen

Assistant Professors: M. V. L. Bennett, R. A. Fishman, E. S. Goldensohn, J. F. Hammill, L. P. Rowland

Assistant Professors of Clinical Neurology: W. Amols, W. F. Caveness, E. Herz, R. J. Masselink, J. Moldaver

Assistant Professor of Neuropathology: I. H. Feigin

Assistant Clinical Professors: A. M. Frantz, C. C. Hare, M. Silbermann, S. F. Thomas, H. G. Weitzen

Associates: S. M. Cohen, J. F. Culleton, S. M. Dillenberg, L. J. Doshay, A. Gallinek, S. Lesse, C. G. McKendree, R. Pietri, H. G. Thompson, Jr., F. T. Zimmerman

Associate in Biochemistry: H. C. Lawler

Associate in Microbiology: G. Shiffman

Associate in Psychiatry: L. R. Hewson

Research Associates: L. Epstein, S. M. Ferguson, S. Ginsburg, O. L. Gonzalez-Monteagudo, H. Hartford, L. T. Kremzner, J. A. Reilly, J. P. Reuben, R. L. Thompson, A. Watanabe, A. Weber, R. Whittam, L. Zablow

Research Associates in Biochemistry: S. Ehrenpreis, F. C. G. Hoskin

Instructors: R. S. Graham, J. L. O'Brien, G. F. Osler

Assistants: H. S. Barrows, R. A. Burns, W-D. Dettbarn, J. Hardie, W. K. Haas, F. P. Iorio, S. G. Penny, R. A. Ricca, M. R. Seiden, M. H. Trieman

At Montefiore Hospital:

Professor of Clinical Neurology: T. Lawyer, Jr.

Associate Clinical Professors: S. Elpern, A. P. Friedman, M. J. Madonick

Assistant Clinical Professors: C. B. Booth, S. Solomon, F. D. Stern

Associates: R. B. Miller, J. H. Scharf

Instructors: K. D. Barron, E. L. Demuth, R. J. Greenberg

Assistants: T. Frigyesi, M. J. Kinosian

At Mt. Sinai Hospital:

Clinical Professor: M. Bender

Lecturer: H. Strauss

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 101T—Introduction to clinical neurology: Neurological examination, anatomical, physiological, and pathological correlations. Lectures and demonstrations two hours a week for twenty weeks. Second year. Professors Merritt and Vicalé.

Neurology 202—Clinical lectures and demonstrations in neurology. One and a half hours a week for twenty weeks. Fourth year. Professors Merritt, Pool, and Vicalé.

Neurology 207-208—Neurology: examination of the patient and interpretation of findings. Fifteen hours a week for two weeks. Third year. Members of staffs.

At Neurological Institute and Montefiore Hospital.

Neurology 209-210—Neurology: the diseases of the nervous system. Lectures and demonstrations two hours a week for seven weeks. Third year. Professor Merritt and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Neurology 241-242—Ward clinical clerkships. Five mornings a week, 9-12; five afternoons a week, 2-5; for eleven weeks. Third year. Professor Merritt and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

NURSING

See the bulletin of the Department of Nursing.

OBSTETRICS AND GYNECOLOGY

Professor: H. C. Taylor (*chairman*)

Professor of Clinical Obstetrics and Gynecology: D. A. D'Esopo

Clinical Professor: V. C. Damon

Associate Professors: A. A. Plentl, A. L. Southam, G. J. Vosburgh

Associate Professor of Biochemistry: S. Lieberman

Associate Professors of Clinical Obstetrics and Gynecology: S. M. Bysshe, S. B. Gusberg, C. M. Steer

Associate Professor of Clinical Medicine: J. W. Jailer

Associate Clinical Professors: W. V. Cavanagh, E. W. Munnell

Assistant Professor of Biochemistry: S. Solomon

Assistant Professors of Clinical Obstetrics and Gynecology: H. C. Frick, C. P. O'Connell, J. B. Rearden, L. B. Shettles, H. Speert, A. J. B. Tillman

Assistant Clinical Professor: J. R. Montgomery

Associates: A. N. Fenton, E. A. Friedman, M. J. Gray, R. E. Hall, M. D. Laird, D. B. Moore, H. M. M. Tovell

Research Associates: H. Guthwin, W. G. Kelly, M. E. Long, L. L. Phillips

Instructors: D. J. Grandin, W. D. Todd

Assistants: G. G. Herman, R. L. O'Connell, T. J. Parks

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: O. J. Severud

At Mt. Sinai Hospital:

Clinical Professor: A. F. Gutmacher

At Woman's Hospital:

Clinical Professor: C. T. Javert

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Obstetrics and Gynecology 201-202—Theory and practice of obstetrics and gynecology. Fifty-six hours of lectures and demonstrations. Third year.

This course consists of lectures supplemented by demonstrations. The subject matter includes: anatomy and physiology of the pelvic organs; pregnancy and the mechanism of normal labor; the complicating diseases associated with pregnancy; etiology, pathology, symptomatology, and diagnosis of gynecological conditions.

Obstetrics and Gynecology 203-204—Fourth year: practical work in obstetrics and gynecology.

The practical work in the obstetrics and gynecology class is divided into six sections, each section receiving eight and one-half weeks of instruction. During this period, each section is divided into three groups:

1. *Obstetrics at Sloane Hospital for Women.* Day and night duty, during which time lodging is furnished by the hospital. Under the direction of the attending staff of the hospital, ward rounds, quizzes, manikin demonstrations, and actual delivery of cases are conducted.
2. *Obstetrics and Gynecology at Sloane Section of Vanderbilt Clinic.* Prenatal and postnatal clinics. Pre-operative and postoperative care of gynecological cases plus instruction in gynecological diagnosis.
3. *Gynecological Service at Sloane Hospital for Women.* Students act as clinical clerks in the wards of the hospital and follow operative and therapeutic care of patients.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

OPHTHALMOLOGY

Professor: A. G. De Voe (*chairman*)

Professor of Anatomy: G. K. Smelser

Professor of Biochemistry: Z. Dische

Professor of Clinical Ophthalmology: G. M. Bruce

Clinical Professors: A. B. Reese, M. C. Wheeler

Associate Professor of Microbiology: S. P. Halbert

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer (*Radiology*)

Associate Clinical Professors: W. S. Knighton, C. A. Perera, J. A. C. Wadsworth

Assistant Clinical Professors: R. N. Berke, J. V. Flack

Assistant Professor: V. Weimar

Assistant Professor of Anatomy: G. A. Pappas

Assistant Professor of Physiology: C. V. Harding, Jr.

Assistant Professors of Clinical Ophthalmology: G. Clark, G. R. Merriam, Jr.

Associates: H. D. H. Brown, F. D. Carroll, R. M. Day, P. Knapp, F. Payne, E. F. Regan

Associate in Microbiology: D. Locatcher-Khorazo

Research Associates: O. Lowenstein, V. Ozanics, M. C. Rittler

Instructors: E. G. Bethke, A. W. Forrest, I. S. Jones

Assistants: C. J. Campbell, R. C. Collins, A. Donn, R. M. Ellsworth, F. H. Farrant,

I. Loewenfeld

Consultant: H. Martin

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Ophthalmology 201-202—Practical instruction in ophthalmology. Fifteen hours a week for two weeks. Third year.

At Vanderbilt Clinic and Institute of Ophthalmology.

Ophthalmology 203-204—Clinical lectures on the diseases of the eye. Twelve one-hour lectures. Third year.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

ORTHOPEDIC SURGERY

Professor: F. E. Stinchfield (*chairman*)

Professors of Clinical Orthopedic Surgery: H. Hallock, H. L. McLaughlin

Clinical Professor: L. A. Lantounis

Associate Professor of Clinical Orthopedic Surgery: C. T. Ryder

Associate Clinical Professor: M. B. Watkins

Assistant Professor: C. A. L. Bassett

Assistant Professor of Biochemistry: I. Clark

Assistant Professors of Clinical Orthopedic Surgery: G. B. Ambrose, F. S. Craig,

A. Garcia, S. R. Gaston, C. S. Neer II

Assistant Clinical Professors: E. C. Bragg, R. E. Carroll, D. K. McElroy

Instructors: J. W. Fielding, A. D. Pietra

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 201-202—Lectures on orthopedic surgery. One hour a week for ten weeks. Third year. Professor Stinchfield.

Orthopedic Surgery 203-204—Practical instruction in orthopedic surgery, including fractures and dislocations. Two and one half weeks as part of *Surgery 204-205*. Third year. Professors Stinchfield and McLaughlin, and staff.

Thirty hours of seminars. Thirty hours of practical instruction in clinics and wards.

Orthopedic Surgery 205-206—Practical instruction in orthopedic surgery, including fractures and dislocations. Twenty-four hours. Fourth year. Professors Stinchfield and McLaughlin, and staff.

Fourteen hours of seminars. Ten hours of practical instruction in clinics and wards.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Orthopedic Surgery 207-208—Clinical instruction on wards, in outpatient department, and in operating room. Third year.

The Department of Orthopedic Surgery participates in the correlative clinics in the first year, with a discussion of fractures, and also presents a series of lectures in connection with *Surgery 102T* and *Anatomy 105FS* in the second year.

OTOLARYNGOLOGY

Professor: E. P. Fowler, Jr. (*chairman*)

Clinical Professors: F. Altmann, D. C. Baker, Jr., J. J. Conley, DeG. Woodman

Associate Professor of Clinical Otolaryngology: J. Waltner

Assistant Professor of Clinical Otolaryngology: M. Basek

Assistant Clinical Professors: H. S. Friedman, R. M. Hui, B. Marquit

Associate: E. B. Bilchick

Instructors: P. Lindenberg, S. Whitfield

Assistant: P. D. Westerhoff

Lecturers: J. Eisenson, T. Fay

At Mt. Sinai Hospital:

Clinical Professor: J. L. Goldman

Associate Clinical Professors: I. B. Goldman, S. Rosen, H. Rosenwasser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 201-202—Practical instruction in the diseases of the ear, nose, and throat. Ten three-hour sessions. Third year. Professors Altmann, Fowler, Waltner, and Woodman, Dr. Basek, and staff.

At Vanderbilt Clinic.

Otolaryngology 203—Lectures in otolaryngology. A total of ten hours. Third year. Professors Altmann, Baker, Conley, Eisenson, Fowler, Woodman, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Otolaryngology 225-226—Research in otolaryngology. Credit and hours to be arranged. Professor Fowler.

Otolaryngology 226-227—Ward clinical clerkship. Open only to students who have already had a clerkship in medicine or surgery. Professor Fowler, Dr. Basek, and staff.

For graduate courses communicate with the Dean's Office, 630 West 168th Street.

PATHOLOGY

Francis Delafield Professor: H. P. Smith (*chairman*)

Professor: D. H. Andersen (*Pediatrics*)

Professor of Neuropathology: A. Wolf

Associate Professors: C. Z. Garber, H. D. Kesten, F. V. Lucas, D. M. Spain, E. E. Sproul, W. B. Stewart

Associate Professors of Neuropathology: D. Cowen, L. Roizin (*Psychiatry*)

Associate Professor of Oral Pathology: L. Cahn (*Dental and Oral Surgery*)

Assistant Professors: D. W. Benninghoff, W. A. Blanc, D. E. Brown, F. P. Shepard, Jr., G. P. Vennart

Assistant Professor of Biochemistry: H. S. Simms

Assistant Professors of Neuropathology: G. Eros (*Psychiatry*), M. Kaufman (*Psychiatry*)

Associate: B. N. Berg

Associates in Neuropathology: S. Donahue, L. M. Geller

Research Associates: S. Fiala, H. Kaunitz, A. S. Said

Instructors: J. J. DiRe, J. G. Gorman, H. J. Van Pennen

Instructor in Neuropathology: J. H. Sung

Assistants: D. N. Brown, E. B. Byrne, D. A. Lindberg, A. L. Middleton, Jr., K. R. Miller, E. A. Schenk, D. H. R. Truscott

Lecturer in Medical Illustrating: A. Feinberg

At Mary Imogene Bassett Hospital:

Associate Professor: C. Van Z. Hawn

Instructor: C. A. Ashley

At Bellevue Hospital:

Research Associate: J. B. Cromie

At Goldwater Memorial Hospital:

Lecturer: M. Bevans

At Montefiore Hospital:

Professor: H. M. Zimmerman

Associate Professor: T. H. Spaet

Instructor: J. I. Berkman

At Mt. Sinai Hospital:

Professor: H. Popper

Associate Professor: S. Otani

Assistant Professors: R. Jahiel, L. Strauss

Instructor: M. Kaneko

At Roosevelt Hospital:

Assistant Professor: B. Kalfayan

At St. Luke's Hospital:

Assistant Professor: C. F. Begg

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 101FST—General and special pathology. Lectures and laboratory. First and second years. 14 pts. The first portion of this course is given during May, and the rest is given in the first and second trimesters of the following year. Professors Lucas, Smith, Stewart, and Vennart, and staff.

A study of the important disease processes by means of demonstrations, autopsies, conferences, case study, and by the use of fresh specimens and museum specimens, along with a very complete series of histological specimens.

Pathology 102S—Neuropathology. Lectures and laboratory. Three hours a week for ten weeks. Second year. Professors Cowen and Wolf, and staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pathology 251–252—Research in pathology. Credit to be arranged.
Hours to be arranged.

For additional courses see the bulletin of the Graduate Faculties.

PEDIATRICS

Reuben S. Carpentier Professor: R. McIntosh (*chairman*)

Professor: H. E. Alexander

Professor of Pathology: D. H. Andersen

Associate Professor: C. M. Riley

Clinical Professor: C. D. May

Associate Professors of Clinical Pediatrics: S. Blumenthal, W. A. Silverman

Associate Clinical Professors: H. S. Altman, J. M. Brush, D. S. Damrosch, J. A. Wolff,

C. L. Wood

Assistant Professors: P. A. di Sant'Agnese, M. M. Grumbach, R. C. Harris, A. G.

Jameson, G. W. Mellin

Assistant Clinical Professors: W. A. Bauman, R. E. Moloshok, M. Singer

Associates: L. A. Boker, R. W. Culbert, E. F. Downs, S. P. Griffiths, W. R. Kessler,

K. Sprunt

Research Associate: G. Leidy

Instructors: R. G. Ames, H. Anfanger, L. S. James (*Anesthesiology*), J. H. Maroney,

R. M. Mickey, D. R. Reed, M. R. Richards, M. H. Samuels, P. R. Scaglione, P. S. Strong,

D. A. Wilcox, L. F. V. Wilking, Jr., A. G. Wilson

Assistants: A. F. Ackerman, B. C. Berliner, A. Blum, Jr., J. P. Brady, W. M. Chemris,

H. I. Cohen, S. J. Cohen, J. A. Costa, C. R. Denning, R. U. Donovan, J. C. Dower, J.

Ducharme, L. G. M. Fox, O. L. Frick, M. J. Gates, B. German, T. B. Givan, Jr., H. Gross-

man, J. R. Guthrie, D. C. Hackett, A. D. Hofmann, W. E. Homan, P. Hudson, M. H.

Jacobs, R. E. Jennings, J. E. Kalbacher, A. A. Macdonald, S. A. Mayer, D. J. Melia, R. B.

Mellins, K. M. Metcalf, W. L. Mitchell, B. C. Morgan, H. E. Poch, M. H. Rachelson,

R. C. Richards, A. P. Rosen, J. G. Shiller, A. L. Sitarz, W. H. Smith, W. R. Stankewick,

D. Stiles, J. C. Taylor, E. Ufford, R. West, D. L. Wethers, R. C. Wheeler

At Mary Imogene Bassett Hospital:

Associate Clinical Professor: T. C. Goodwin

Instructor: J. H. Cannon

At Mt. Sinai Hospital:

Clinical Professor: H. L. Hodes

Assistant Clinical Professor: A. L. Florman

Instructors: D. Gribetz, W. Henley, L. Steinfeld, A. Y. Sweet

At St. Luke's Hospital:

Assistant Clinical Professor: J. F. Eagle, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pediatrics 201-202—Introduction to pediatrics. Five and a half weeks. Third year. Professor Alexander and staff.

At Babies Hospital and Vanderbilt Clinic.

Mornings are devoted to conferences with various members of the Pediatric Staff on special topics and to the presentation and discussion of cases selected from the wards of Babies Hospital. The students work in the general Outpatient Clinic on three afternoons a week, and on one morning they are assigned to the Well Baby Clinic; once a week they are assigned in rotation to the Pediatric Service of Mount Sinai Hospital.

Pediatrics 203-204—Clinical clerkship in pediatrics. One month. Fourth year. Professor Riley and staff.

At Babies Hospital.

Student and hospital resident work closely as a team in the care of patients. The students take the history of each case and perform physical examinations. Opportunity is given for practice in the simpler diagnostic and therapeutic procedures customary on pediatric wards. In addition to regular ward rounds there are conferences on special topics and seminars on pediatric pathology with Professor Andersen and staff. On two afternoons a week the students are assigned to the Outpatient Clinic.

Pediatrics 207-208—Bedside instruction in the common communicable diseases. Two two-hour sessions. Third year.

At Bellevue Hospital.

PHARMACOLOGY

David Hosack Professor: H. B. van Dyke (*chairman*)

Professor: S-C. Wang

Associate Professor: W. H. Sawyer

Assistant Professors: H. J. Bartelstone, F. G. Hofmann

Instructor: H-H. Wang

Lecturer: J. A. Schneider

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 101FS—General and special pharmacology. One hour lecture or conference, first trimester; four hours lecture or conference and six hours laboratory, second trimester. Second year. 6 pts. The staff.

Pharmacology 202—Medical therapeutics and applied pharmacology. One conference a week for sixteen weeks. Fourth year. Third-year elective. Professors Hofmann and Southworth (*from Medicine*).

See *Medicine* 209-210.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Pharmacology 201—Special methods in pharmacology. Hours and eligibility to be determined on consultation. The staff.

A series of conferences and advanced laboratory problems designed to prepare the student for research in pharmacology.

Pharmacology 229-230—Research in pharmacology. Eligibility to be determined after consultation. Hours and credits to be arranged. The staff.

Pharmacology 301—Seminar in pharmacology. No credit.

For advanced courses see the bulletin of the Graduate Faculties.

PHYSICAL MEDICINE AND REHABILITATION

Professor: R. C. Darling (chairman)

Professor of Physical Medicine: W. B. Snow

Associate Clinical Professor: M. Hoberman

Associate Clinical Professor of Rehabilitation Medicine: A. D. Gurewitsch

Assistant Professor: S-J. Yue

Associate Professor and Director of Training for Occupational Therapists: M. L. Franciscus

Associate Professor and Director of Training for Physical Therapists: M. E. Callahan

Assistant Professor and Associate Director of Training for Occupational Therapists: M. E. Schnebly

Assistant Professor and Associate Director of Training for Physical Therapists: R. Dickinson

Assistant Professor of Occupational Therapy: M. Abbott

Associates in Occupational Therapy: D. H. Ericson, I. P. Robinault

Associate in Physical Therapy: K. T. San Julian

Instructors in Occupational Therapy: A. A. Deutsch, E. C. Kille, A. R. Trei, T. L. Wellerson

Instructors in Physical Therapy: S. Brunnstrom, L. H. Cairns, S. B. Feitelberg, B. Talmud

Assistant in Occupational Therapy: E. B. Berry

Assistants in Physical Therapy: T. Corbitt, H. Vanderwalde

At Brooklyn Veterans Administration Hospital:

Instructor: L-C. Y. Chen

At Mt. Sinai Hospital:

Assistant Clinical Professor: L. H. Wisham

At Manhattan Veterans Administration Hospital:

Instructor: L. T. Pai

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physical Medicine and Rehabilitation 201—Elective course in physical medicine and rehabilitation. Third year.

This course is offered to a limited number of students for special work during one quarter of the third year.

See the bulletin of Courses for Physical Therapists and Occupational Therapists.

PHYSIOLOGY

John C. Dalton Professor: M. I. Gregersen (*chairman*)

Professor: W. S. Root

Clinical Professor: G. Wakerlin

Visiting Professor: M. Sato

Associate Professors: L. T. Cizek, W. L. Nastuk, W. W. Walcott

Assistant Professors: S. Chien, C. V. Harding, Jr. (*Ophthalmology*), W. R. Loewenstein, G. Mulheims, M. Nocenti

Research Associates: N. Ishiko, S. J. Socolar

Instructors: M. Blank, R. J. Dellenback, E. C. Gerst, G. R. Rowley, S. Usami

Assistants: P. Farnsworth, B. M. Hitzig, R. A. Weiss

At Mt. Sinai Hospital:

Assistant Clinical Professor: F. Hollander

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 101Fo—Human physiology. Three hours lecture, one hour conference, and twelve hours laboratory a week. First year. 10 pts. Members of the staff.

Physiology 103Fo—Correlative clinic. First year.

See *Anatomy 114FFo*.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Physiology 201—Advanced physiology. Professor Gregersen and staff.

Tu. Th. 3-5. Laboratory by arrangement.

History of physiology and modern experimental methods. The course includes practice in spectrophotometric and gasometric methods, neurophysiological procedures, surgical techniques, methods of measuring cardiac output, blood volume, etc.

Physiology 251-252—Research in physiology. Eligibility to be determined on consultation. Members of the staff.

For courses offered under the Faculty of Pure Science consult the bulletin of the Graduate Faculties.

PSYCHIATRY

Professors: F. J. Kallman (*Genetics*), L. C. Kolb (*chairman*), W. S. Langford, I. H. MacKinnon

Professors of Clinical Psychiatry: P. H. Hoch, W. A. Horwitz

Professors of Biochemistry: W. M. Sperry, H. Waelsch

Professor of Medical Psychology: J. Zubin (*Biometrics*)

Professor of Psychology: C. Landis

Clinical Professors: H. Bruch, G. E. Daniels, R. B. McGraw

Associate Professor of Clinical Psychiatry: P. Polatin

Associate Professors of Medical Psychology: A. Carr, W. N. Thetford

Associate Professor of Neuropathology: L. Roizin

Associate Clinical Professors: N. Ackerman, V. Bernard (*Public Health and Administrative Medicine*), G. Goldman, E. M. Gruenberg (*Epidemiology*), A. Karush, K. Kelley, H. R. Klein, L. Ovesey

Assistant Professor: S. H. Frazier

Assistant Professors of Neuropathology: G. Eros, M. Kaufman

Assistant Professors of Biochemistry: A. Lajtha, H. L. Meltzer, B. Weiss

Assistant Clinical Professors: J. Cattell, D. Dunton, B. Easser, L. Gidro-Frank, M. Glusman, G. A. Jervis, J. P. Lambert, S. Malitz, V. Moses, R. Moulton, J. D. Rainer, R. Sobel, J. Weber

Associates: G. Baker, W. A. Brooks, A. Cooper, E. B. Davis, W. Gaylin, R. Gilder, Jr., A. Goldfarb, S. Goodman, H. L. Hall, L. R. Hewson (*Neurology*), C. B. A. Pasquarelli, A. Polatin, S. C. Post, J. Rioch, A. A. Rosner, E. Savitsky, A. Schick, W. A. Schonfeld, M. Schreiber, D. Shapiro, R. Taylor, W. R. Watson, E. Welsch, V. Wilking

Associates in Biochemistry: G. Alexander, G. Cohen

Research Associates: G. B. Baroff, E. I. Burdock, B. Casselman, C. J. Dalmau (*Dental and Oral Surgery*), B. P. Dohrenwend, A. Falek, G. Gold, M. Gold, L. F. Jarvik, L. B. Kalinowsky, L. M. Kopeloff, B. Kohlsaat, J. Rutschmann, J. Schachter, K. Sterling, S. Sutton

Research Associate in Biochemistry: M. Berger

Instructors: K. Z. Altschuler, M. J. Aronson, A. B. Ballard, S. Berl, J. P. Briggs, R. J. Campbell, R. J. Carotenuto, J. Cederquist, H. Chartock, L. Cobliner, L. Coleman, J. A. Cook, Z. DeFries, H. D. DeWitt, D. J. Dillon, D. B. Douglas, R. W. Evans, M. Farnham, E. Forster, O. Frankel, S. Furst, S. G. Gaylin, L. A. Hamilton, Jr., R. Hartogs, H. Hendin, W. Hockstetter, E. Huff, H. McHugh, T. Meltzer, A. M. Mesnikoff, A. Messer, J. S. Montgomery, J. O'Connor, J. F. Oliven, A. Peck, H. Potter, K. F. Prescott, W. C. Roehrig (*Medical Psychology*), P. E. Ryberg, K. Salzinger (*Medical Psychology*), D. Sanders (*Public Health and Administrative Medicine*), L. Scheinman, B. D. Schoenberg, J. Sheps, D. E. Sobel, S. Stirt, M. O. Strahl, C. D. Tait, R. S. Ward, W. F. Weber, J. Weinless, B. Wilkins

Assistants: A. R. Kaplan, D. Sank, J. S. Schachter, M. H. Wodin

Lecturers: H. G. Birch, H. Brill, H. Davidson, K. Goldstein, R. C. Hunt, A. Kardiner, L. S. Kubie, S. R. Lesser, D. Levy, J. A. Millet, F. J. O'Neill, S. Rado

Administrative Assistant: L. Porter

At Bronx V.A. Hospital:

Assistant Clinical Professor: B. L. Pacella

Associates: W. Brown, J. E. Pisetsky

At Creedmoor State Hospital:

Clinical Professor: L. Bender

Assistant Clinical Professor: J. R. Whittier

At Henry Ittleson Center for Child Psychiatry:

Assistant Clinical Professor: W. Goldfarb

At Manhattan State Hospital:

Assistant Clinical Professor: N. E. Stein

Instructors: H. D. B. Denber, I. Kesselbrenner

At Mt. Sinai Hospital:

Clinical Professor: M. R. Kaufman

Associate Clinical Professor: H. I. Weinstock

Instructors: L. Linn, B. C. Meyer

Lecturers: C. Fisher, P. Goolker

At Rockland State Hospital:

Assistant Clinical Professor: N. Kline

Assistant: G. Simpson

Research Assistants: Y. Taketomo, P. B. Vestergaard

At St. Luke's Hospital:

Associate Clinical Professor: J. Cotton

Assistant Clinical Professor: B. Balser

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 101FST—Introduction to human behavior. Thirty one-hour lectures and demonstrations concerned with the genetic, family, and cultural processes underlying healthy behavior, the nature of anxiety, the psychological methods of adaptation to anxiety, and the processes of communication, thought, and learning. The process of development from infancy through the various periods of maturity is emphasized throughout. First year. Professors Kolb, Bruch, and Dunton.

Psychiatry 102S—Psychopathology. Twenty one-hour lectures and demonstrations with the use of audiovisual aids. Second year. 1 pt. Professors Carr, Frazier, Thetford, and Watson.

Psychiatry 203-204—Clinical psychiatry. Fifteen hours clinical conferences. Clinical clerkships, twelve hours a week for eleven weeks at the N.Y. State Psychiatric Institute, Presbyterian Hospital, and Manhattan State Hospital. Third year. Professors Gidro-Frank, Horwitz, Langford, R. MacKinnon, Polatin, and Stein, and clinical faculty.

Psychiatry 205—Clinical psychiatry: medical practice and special psychiatric problems, lectures and demonstrations. One and one-half hours a week for ten weeks. Also clinical supervision in group medical clinic. Fourth year. Dr. A. Cooper and clinical faculty.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Psychiatry 219-220—Psychometric methods. Forenoons, twice a week. Professors Carr and Thetford.

Practical exercises in mental measurements. Limited to two students.

Psychiatry 221-222—Elective in psychiatry. Hours to be arranged. Third year. Professor Kolb and faculty.

At the Psychiatric Institute and Presbyterian Hospital.

ELECTIVE GRADUATE COURSE IN PSYCHIATRY

Psychiatry 223—Female and child psychiatry. Full time, September to June. Professors Kolb and MacKinnon, and staff. Fee: \$800.

PREVENTIVE AND ADMINISTRATIVE MEDICINE

(Curriculum taught by the School of Public Health and Administrative Medicine)

Biostatistics:

Professor: J. W. Fertig*Assistant Professors:* A. P. Berger, G. L. Saiger*Research Associate:* N. W. Chilton*Instructor:* P. B. Michelsen

Community Psychiatry:

Associate Clinical Professors of Psychiatry: V. W. Bernard, E. M. Gruenberg*Instructor in Social Work:* S. Utensky*Instructor in Psychiatry:* D. S. Sanders

Epidemiology:

Professor: E. G. Clark*Adjunct Associate Professor:* S. Frant*Assistant Professors:* A. C. Gelman, M. D. Schweitzer*Instructors:* F. R. Gearing, W. D. M. Harris*Assistant:* A. B. Ritterband

Medical Care Administration:

Joseph R. DeLamar Professor of Administrative Medicine: R. E. Trussell (*chairman*)*Visiting Professor of Medical Sociology:* E. A. Suchman*Associate Professors of Administrative Medicine:* C. C. Clay, J. Elinson*Adjunct Associate Professors of Administrative Medicine:* O. W. Anderson, M. Cherkasky, C. G. Roswell, R. P. Sloan, D. B. Straus*Adjunct Associate Professor of Hospital Administration:* B. C. MacLean*Assistant Professors of Administrative Medicine:* H. Baumgarten, Jr., B. Mintz, G.*Pendall, F. W. van Dyke**Adjunct Assistant Professors of Administrative Medicine:* E. M. Bluestone, G. A. Silver*Research Associates in Administrative Medicine:* F. Berio, J. E. Bryan, R. B. Heiser,*M. C. Maloney, C. F. Muller, R. A. Munoz, P. Norat, M. C. Scoville, J. J. Williams**Assistants in Administrative Medicine:* M. N. Glasser, R. Loewenstein, M. J. Robertson,*M. L. C. Rodriguez, J. G. Sachar**Administrative Assistant:* L. Gerold

Nutrition:

Professors: W. H. Sebrell, Jr., E. L. Severinghaus*Adjunct Professor:* N. S. Scrimshaw*Research Associate in Nutrition Sciences:* S. A. Hashim

Occupational Medicine:

Professor: L. J. Goldwater*Adjunct Associate Professor:* I. R. Tabershaw*Adjunct Assistant Professor:* M. Kleinfeld*Instructor:* H. Gilbert

Public Health Education:

Professor: G. Rosen

Adjunct Assistant Professor: I. S. Shapiro

Public Health Practice:

Associate Professor: M. W. Barnard

Adjunct Associate Professors: W. A. Brumfield, H. E. Hilleboe, M. S. Ingalls, G. James

Adjunct Associate Professor of Dental Public Health Practice: A. Bushel

Assistant Professor: A. J. Beckmann

Adjunct Assistant Professors: M. Antell, R. E. Rothermel

Sanitary Science:

Associate Professor: A. R. Jacobson

Tropical Medicine:

Professor of Parasitology: H. W. Brown

Associate Professor of Medical Entomology: R. W. Williams

Associate Professor of Parasitology: K. L. Hussey

Adjunct Assistant Professor: H. B. Shookhoff

Research Associate in Parasitology: M. C. Duñn

Instructors: K. G. Dwork, I. D. Guicherit, M. M. Sterman

Lecturers: F. B. Amos, D. B. Ast, G. Baehr, L. Baumgartner, H. J. Becker, A. J. Binkert, P. R. Bozzo, G. Bugbee, H. R. Cohen, E. de Armas, P. M. Densen, W. R. Donovan, D. J. Doran, C. L. Erhardt, R. T. Fisher, C. N. Frey, R. S. Goodhart, M. Greenberg, A. E. Grosso, E. Hayt, H. H. Hughes, H. O. Humbert, M. A. Jacobs, N. H. Jolliffe, J. W. Kauffman, R. N. Kerst, J. H. Kinnaman, S. G. Kohl, D. L. Kurtz, G. W. Larimore, S. S. Lifson, J. Masur, B. F. Mattison, J. M. May, E. A. Mosso, J. J. Nelan, B. L. Oser, B. B. Palmer, M. J. Plishner, M. Radom, J. W. G. Rehn, F. B. Rogers, A. J. J. Rourke, L. Schneider, M. E. Segal, R. F. Sikes, J. E. Silson, J. E. Snyder, W. C. Spring, Jr., J. V. Terenzio, D. K. Tuller, S. B. Weinberg, L. Weiner, E. Wellin, B. Werne, R. A. Wyman

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Public Health 201—Statistical analysis of medical and public health data. One hour a week for ten weeks. First year. Professor Fertig.

Public Health 101F—Introduction to epidemiology and public health control measures. One hour a week for eleven weeks. Subject matter coordinated with *Microbiology 105F* given by the Department of Microbiology. Second year. Staff.

Public Health 101T—Parasitic diseases: the protozoa, helminths, and arthropods of medical significance. Five hours lecture, laboratory, and demonstrations. Second year. 3 pts. Professor Brown and staff.

Public Health 203-204—Preventive and administrative medicine. Six hours a week; lectures, seminars, and field work in public health and medical care for eleven weeks. Third year. Staff.

Public Health 205—Forensic medicine and medical jurisprudence. One hour a week for sixteen weeks. Lectures. Fourth year. Staff.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

The School of Public Health and Administrative Medicine provides a wide variety of electives in administrative medicine, public health practice, biostatistics, epidemiology, nutrition, occupational medicine, parasitology, etc. Students interested in pursuing further studies in preventive and administrative medicine and public health should consult the bulletin of the School of Public Health and Administrative Medicine and confer with the professor concerned. A special elective in social medicine is available to a limited number of students in the Division of Social Medicine of Montefiore Hospital.

The bulletin describes courses leading to the degrees of Master of Science, Master of Public Health, and Doctor of Public Health, and may be obtained at the School of Public Health and Administrative Medicine, 600 West 168th Street, New York 32, N.Y.

RADIOLOGY

Professors: J. Caffey, G. Failla (*Physics*), H. W. Jacox, E. H. Quimby (*Physics*), W. B. Seaman (*chairman*), J. M. Taveras

Associate Professors: R. J. Guttmann, H. H. Rossi (*Physics*), R. Rugh (*Biology*), J. S. Wells

Associate Professor of Clinical Ophthalmology: R. L. Pfeiffer

Assistant Professors: A. L. Bachman, D. H. Baker, K. Ellis, G. S. Schwarz, N. duV. Tapley

Associates: M. Alpert, C. B. Braestrup, D. W. Johnson, L. Rottenberg, R. Schlaeger

Instructors: M. Alpert, H. L. Atkins, M. H. Becker, N. C. Chase, A. D. Crosett, Jr., F. M. Cummins, R. A. Evans, R. J. Hochstim, J. M. Moynahan, R. S. Yalow

At Mary Imogene Bassett Hospital:

Assistant Clinical Professor: O. D. Sahler

At Hospital for Joint Diseases:

Associate: M. M. Pomeranz

At Montefiore Hospital:

Associate Clinical Professor: S. Fineman

At Mt. Sinai Hospital:

Associate Clinical Professors: S. Feitelberg (*Physics*), B. S. Wolf

Instructor: S. M. Silverstone

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 201—Diagnostic Radiology. Two hours a week for six weeks. Third year. Professors Ellis, Schwarz, Seaman, and Taveras, and Drs. Alpert, Cummins, and Schlaeger.

Radiology 202—Radiotherapy. One hour a week for eleven weeks. Third year. Includes lectures on the basic fundamentals of radiologic physics, elementary radiobiology, and

the principles of radiotherapy. Professors Jacox, Rossi, Rugh, Quimby, Tapley, and Dr. Crosett.

Radiology 203-204—X-ray interpretation. Conferences four hours a week for four weeks. Fourth year. Professors Caffey, Seaman, Taveras, and Wells, and Dr. Alpert.

Radiology 206—Biologic effects of ionizing radiation. Four one-hour lectures. Third year. Professors Jacox, Quimby, Rugh, and Tapley.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Radiology 213—Clinical radiology. Four- to six-week periods throughout the third year. Professors Ellis, Schwarz, Seaman, and Taveras, and Drs. Alpert, Crossett, and Schlaeger.

This course is a clinical clerkship in roentgen diagnosis and radiotherapy. It includes roentgen anatomy and technique, methods of film interpretation and fluoroscopy, and the diagnosis, treatment, and follow-up care of the patient with cancer.

RADIOLOGIC PHYSICS

Course leading to the degree of Master of Science

A full-time, integrated course which is given throughout the academic year and which consists of lectures, seminars, conferences, and laboratory work. The instructors are Professors Feitelberg, Quimby, Rossi, Rugh, Seaman, and Tapley, and Messrs. Braestrup and Gross, all of the Department of Radiology, and Professor Fertig of the School of Public Health and Administrative Medicine.

The course is planned to prepare the student to carry out all the functions of a physicist in a hospital department of radiology. Topics included are elementary and advanced radiologic physics, electronics, radiation standardization and protection, radioactive isotopes, biostatistics, and clinical applications of radiation physics.

Prerequisite: a Bachelor's degree with a major or a strong minor in physics, or the equivalent. The class is limited to six.

SURGERY

Valentine Mott Professor: G. H. Humphreys II (*chairman*)

Professors: V. K. Frantz, R. Lattes

Professor of Anatomy: M. R. Murray

Professors of Clinical Surgery: C. D. Haagensen, R. N. Schullinger, L. W. Sloan

Clinical Professor: R. H. Wylie

Associate Professors: A. Himmelstein, N. Lane

Associate Professors of Clinical Surgery: H. G. Barker, A. H. Blakemore, G. F. Crikelair, R. A. Deterling, R. H. E. Elliott, Jr., D. V. Habif, E. L. Howes, M. R. Porter, T. V. Santulli

Associate Clinical Professors: H. S. F. Cooper, J. Ferrer

Assistant Professors of Clinical Surgery: R. B. Hiatt, D. M. Ju, F. R. McAllister, R. L. Moore, G. Sanger, J. Scudder, E. B. Self

Assistant Clinical Professor: E. N. Goodman

Associate in Biochemistry: I. Goodman

Research Associates: B. Johnson, G. Katz, M. S. Parshley, E. Peterson, M. S. Schwarz

Instructors: H. Auchincloss, Jr., S. B. Bhonslay, Jr., C. R. Feind, C. W. Findlay, C. O. Griffiths, Jr., F. P. Herter, H. F. Luddecke, I. R. Malm, A. J. Novack, J. Prudden, A. B. Voorhees, S. G. Weissman, P. D. Wiedel, M. Wolff

Research Assistant: H. H. Benitez

Assistants: R. Berry, R. E. Carlson, L. A. Johnson, J. A. Malcolm, A. M. Markowitz, DeW. C. Richey, F. C. Symonds, Jr.

At Mary Imogene Bassett Hospital:

Clinical Professor: J. H. Powers

Assistant Clinical Professors: A. Jaretzki III, J. Mithoefer

At Bellevue Hospital:

Clinical Professor: K. M. Lewis

Associate Clinical Professor: H. C. Maier

Assistant Clinical Professors: M. Chamberlain, R. S. Mueller, D. M. Weeks

Associates: J. Ford, W. W. Heroy, H. A. Kingsbury, P. Kirschner, A. Lambert, K. M.

Lewis, Jr., E. G. Stanley-Brown, W. A. Wichern, T. S. Winslow, Jr.

Instructors: T. M. McNeill, W. W. Miner, R. K. Snyderman, H. Stern, J. M. Wilson, Jr.

Assistants: L. Ballantyne, R. Matflerd, M. Moley, E. T. Quash

At Montefiore Hospital:

Clinical Professor: E. S. Hurwitt

At Mt. Sinai Hospital:

Clinical Professor: I. D. Baronofsky

At Roosevelt Hospital:

Clinical Professor: H. A. Patterson

Associate Clinical Professors: F. H. Amendola, J. W. Littler, J. E. Thompson

Instructor: J. B. Rodgers

At St. Luke's Hospital:

Clinical Professor: H. A. Zintel

Associate Clinical Professors: A. E. W. Ada, P. C. Morton

Assistant Clinical Professors: H. F. Fitzpatrick, R. B. Stark

Instructors: R. W. Frazer, W. G. Knox

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 101S—Introduction to surgery. One hour a week for eleven weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 102T—Recitations, demonstrations, and clinic in principles of surgery. (Includes *Orthopedic Surgery 205–206*.) Six hours a week for ten weeks. Second year. Professors Frantz, Harvey, Lattes, and staff.

Surgery 201–202—Surgery lectures. One hour a week for twenty-three weeks. Third year. Professor Humphreys and staff.

Surgery 204–205—Surgical outpatient department and anesthesia. (Includes *Surgery 211–212*, *Radiology 201–202*, and *Orthopedic Surgery 203–204*.) Five mornings and five afternoons for five and a half weeks. Third year. Professor Humphreys and staff.

Surgery 209-210—Outpatient clinical clerkships. Two months, combined with *Medicine* 207-208. Fourth year. Professor Humphreys and staff.

The student has the opportunity to work five full days a week in Vanderbilt Clinic in a group practice program.

Surgery 211-212—Practical instruction in surgical pathology. Two hours a week, combined with *Surgery* 204-205, five and a half weeks. Third year. Professor Frantz.

Surgery 213-214—Clinical clerkship in surgery. Five days a week for two months. Fourth year. Professor Humphreys and staff. Can be taken at one of the following hospitals: Presbyterian, Roosevelt, St. Luke's, and Mary Imogene Bassett.

Surgery 217-218—Clinical clerkships at Bellevue Hospital. Fourth year. Professor Lewis and assistants. May be taken in place of *Medicine* 221-222.

ELECTIVE FOR THE DEGREE OF DOCTOR OF MEDICINE

Surgery 221-222—Research in surgical laboratory. For third- and fourth-year students during the college year and summer months. Professor Deterling and assistants.

Definite problems are assigned which may be distinct entities or phases of some of the larger problems being studied in the laboratory.

Surgery 225—Tissue culture as a research method. One hour lecture and three hours laboratory from November 1 to February 1. Professor Murray and assistants.

Conferences and individual instruction dealing with the structure and function of normal neoplastic cells, technique of tissue culture, and interpretation of results. For qualified graduate students.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

UROLOGY

Professor: J. K. Lattimer (*chairman*)

Professor of Clinical Urology: G. W. Fish

Associate Clinical Professors: C. T. Hazzard, P. B. Hudson, M. M. Melicow, J. N. Robinson*

Assistant Professor of Biochemistry: T. Price

Assistant Professors of Clinical Urology: T. J. Sullivan, R. J. Veenema, H. H. Zinsser

Associates: R. F. Seidel, R. C. Yeaw

Associate in Biochemistry: M. E. Lombardo

Research Associate: H. Seneca

Instructors: S. B. Braham, A. L. Dean, J. T. Donovan, S. Pulrang, A. Uson, A. T. Willetts

Assistants: J. E. Bowers, T. D. Boyes, P. F. Crutchlow, C. A. Furey, O. M. Lilien, M. B. Pincus, M. J. Pirozzi, M. S. Roberts, T. A. Viscelli, F. Yandel, Jr.

REQUIRED FOR THE DEGREE OF DOCTOR OF MEDICINE

Urology 201-202—Clinical clerkships in urology, in the Squier Urological Clinic. Fourth year. Professors Lattimer and Fish, and staff.

This course consists of lectures, demonstrations, and surgical motion pictures illustrating the fundamental pathogenesis, diagnosis, and treatment of urological disorders. Cystoscopic diagnosis, Roentgen diagnosis, and pathological demonstrations are presented. Patients are studied on the wards, and a term paper is required.

For graduate courses communicate with the Dean's office, 630 West 168th Street.

* On leave.

SPECIAL FIELD: BIOPHYSICS

The degree of Doctor of Philosophy for work in the field of biophysics is under the administration of the Joint Committee on Graduate Instruction through its Subcommittee on Biophysics of which the members are:

Shirley L. Quimby, *Professor of Physics, Chairman*
 G. Failla, *Professor of Radiology (Physics)*
 Edith H. Quimby, *Professor of Radiology (Physics)*
 Charles O. Beckman, *Professor of Chemistry*
 W. S. Root, *Professor of Physiology*
 T. Hayashi, *Professor of Zoology*
 T. Duane Price, *Assistant Professor of Biochemistry*

The following course is required for the degree of Doctor of Philosophy:

Biophysics 202—Special problems and techniques in biophysics. Four hours spring session. 4 pts. Lectures by several officers of instruction of the Faculty of Medicine. *Given in 1960 and in alternate years thereafter.*

W. F. 4-6.

This course is designed to acquaint the student with the scope of biophysics and to give him an introduction to its special methods and techniques. The first group of topics includes basic methods such as spectroscopy, microscopy, photoelectric and diffraction phenomena, and the application of these to physiological problems of nerve and muscle activity, locomotion, heat and blood flow, and the special senses. These are followed by consideration of stable and radioactive isotopes, x-rays, and the biological effects of radiation. Throughout the course, emphasis will be on applications to biological problems, not on methods or phenomena.

Prerequisite: *Physics 115-116, Mathematics 104, Chemistry 91-92, and Zoology 141, or their equivalents.*

Students may choose electives from selected courses in biochemistry, neurology, otolaryngology, physiology, and radiology in the College of Physicians and Surgeons, and in chemistry, mathematics, physics, and zoology at the Morningside campus. See specific departments in this bulletin and in the bulletin of the Graduate Faculties.

Prospective candidates for the degree of Doctor of Philosophy in the field of biophysics should consult the chairman of the subcommittee concerning required and optional courses and other specific requirements for the degree.

REFERENCE BOOKS AND TEXTBOOKS

The following list includes required and recommended books. For the convenience of those who wish to determine their expenses in advance, there are appended the lowest prices at which the books, in cloth binding, can be purchased in New York City. These prices are liable to fluctuation. *Students are advised against buying any books until specifically advised by the departments concerned.*

GROSS ANATOMY. Required: *Textbook of Anatomy*, Cunningham, \$17.50; *Atlas of Descriptive Human Anatomy*, Vol. III, Sobotta, \$17.50; Dorland's or Stedman's *Medical Dictionary*, \$12.50.

MICROSCOPIC ANATOMY. Required: *Bailey's Textbook of Histology* (14th ed.), \$11. Recommended but not required: *Textbook of Histology* (7th ed.), Maximow and Bloom, \$11.

NEUROANATOMY. Required: *Human Neuroanatomy* (4th ed.), Strong and Elwyn, approx. \$8.50; *Laboratory Manual for Neuroanatomy*. Recommended but not required: *The Anatomy of the Nervous System* (10th ed.), Ranson and Clark, \$9.50.

EMBRYOLOGY. Required (one of the following): *Developmental Anatomy* (6th ed.), Arey, \$9.50; *Human Embryology* (2d ed.), Patten, \$12.

BIOCHEMISTRY. Required: *Principles of Biochemistry*, White, Handler, Smith, Stetten (2d ed.), approx. \$15; *Laboratory Manual* (1959), Staff, \$2.50.

DERMATOLOGY. Recommended but not required: *Diseases of the Skin* (4th ed.), Andrews, \$13.50; *Practical Dermatology*, Lewis (2d ed.), \$8.00; *Syphilis, Its Course and Management*, Thomas, \$5.50; *Manual of Clinical Mycology* (2d ed., 1954), Conant, \$6.50.

MEDICINE. Recommended but not required: *Principles and Practice of Physical Diagnosis* (2d ed.), Martini, \$4.00; *Clinical Hematology*, Wintrobe, Lea, and Febiger (4th ed.), \$15; *Biochemistry of Disease* (2d ed.), Bodansky, Macmillan, \$12; *Textbook of Medicine* (10th ed.), Cecil and Loeb, approx. \$17.50; *Principles of Internal Medicine*, Harrison (2d ed.), \$18.50; *Classical Descriptions of Disease*, Major, \$8.50. Reference textbooks: *Loose-Leaf Medicine*, Oxford, \$150.

MICROBIOLOGY. Required: *Laboratory Manual in Microbiology and Immunology*, \$3.00; *Dubos' Bacterial and Mycotic Infections of Man* (3d ed.) and *Rivers' Viral and Rickettsial Infections of Man* (3d ed.), \$17 per set.

NEUROLOGY. Required: *The Clinical Examination of the Nervous System*, Monrad-Krohn, (11th ed.), \$9.50, or *The Neurologic Examination*, DeJong, (2d ed.), \$20; and one of the following: *Textbook of Neurology* (2d ed.), Merritt, \$12.50; *A Textbook of Clinical Neurology*, Wechsler (8th ed.), \$11; *Diseases of the Nervous System*, Brain, \$11.50. Recommended but not required: *Basis of Clinical Neurology*, Brock, \$7.00; *Diseases of the Nervous System in Infancy, Childhood and Adolescence*, Ford, \$18.50.

OBSTETRICS AND GYNECOLOGY. Required for gynecology: *Textbook of Gynecology* (5th ed.), Novak and Novak, \$11. Required for obstetrics: *Williams' Obstetrics* (11th ed.), Eastman, \$14.

OPHTHALMOLOGY. Recommended: *May's Diseases of the Eye* (22d rev. by C. A. Perera) \$6; *Gifford's Textbook of Ophthalmology* (6th ed.), F. H. Adler, \$8.00.

ORTHOPEDIC SURGERY. Required: *Shands' Hand Book of Orthopedic Surgery*, St. Louis, Mosby (5th ed.), \$9.75; *Manual of Orthopaedic Surgery*, American Orthopedic Association; *A Manual of Fractures and Dislocations*, Stimson (3d ed.), \$4.50. Recommended but not required: *The Management of Fractures*, Key and Conwell, \$20; *Fractures* (2 vols.), Watson-Jones, \$22.

OTOLARYNGOLOGY. Required (one of the following): *Specialties in General Practice* (chapters on ear, nose, and throat), Cecil (2d ed.), \$16; *Basic Otolaryngology*, F. Lederer and A. R. Hollender, \$7.50.

PATHOLOGY. Required for 101FST (one of the following): *Textbook of Pathology*, Boyd, \$12.50; *Human Pathology*, Karsner, \$15; *Pathology*, Anderson, \$16; *Robbins' Textbook of Pathology*, \$18.

PEDIATRICS. Required (one of the following): *Holt Pediatrics*, Holt and McIntosh, \$15; *Textbook of Pediatrics*, W. E. Nelson, \$15. Recommended but not required: *Growth and Development of Children*, Watson and Lowrey (3d ed.), \$7.75; *Pediatric X-ray Diagnosis* (3d ed.), Caffey, \$28; *Common Contagious Diseases*, Stimson and Hodes, \$8.50.

PHARMACOLOGY. Required: *The Pharmacological Basis of Therapeutics*, Goodman and Gilman (2d ed.), \$17.50.

PHYSIOLOGY. Required: *Philip Bard's Medical Physiology*, \$14.

PSYCHIATRY. Required: *Textbook of Psychiatry* (5th ed.), Noyes and Kolb, \$8.00. Recommended but not required: *Introduction to Psychiatry*, English and Finch (2d ed.), \$6.95.

PUBLIC HEALTH. Recommended: *Textbook of Clinical Parasitology* (1952), Belding, \$14; *Preventive Medicine and Public Health* (2d ed., 1956), W. G. Smillie, \$7.50; *Preventive Medicine for the Doctor in the Community*, H. R. Leavell and E. G. Clark, \$10; *Rosenau, Preventive Medicine and Public Health* (8th ed.), Kenneth F. Maxcy, \$15.

RADIOLOGY. Recommended but not required: *Radiology for Medical Students*, Hodges, Lampe, and Holt, \$8.50.

SURGERY. Required: *Introduction to Surgery*, Franz and Harvey (4th ed.), \$6.00. Recommended but not required: *Surgery Principles and Practice*, Allen and others, \$16; *Textbook of Surgery* (6th ed.), Christopher, \$15.50; *General Surgery* (6th ed.), Cole and Elman, \$12.50; *Manual of Anesthesiology*, Schwartz and others, \$4.25; *Surgery*, Homans, \$10.

UROLOGY. Recommended but not required: *General Urology*, Smith, \$4.50; *Principles of Urology*, Campbell, \$9.50.

A microscope of standard make fitted with the following attachments will fill the student's requirements:

- | | |
|-------------------------------------|------------------------------|
| 1. Triple nosepiece | 4. 16mm. and 4mm. objectives |
| 2. Abbe or variable focus condenser | 5. Oil immersion lens |
| 3. 10x and 6x oculars | |

The cost of a suitable reconditioned microscope varies from \$100 to \$230 depending on the age, make, and model. The standard prices of new microscopes range from \$381

to \$617. Each student should also provide himself with a substage lamp. Microscopes may be rented at \$6 a month or \$52 for a school year. A limited supply of binoculars are available also for rental at \$12 a month, or \$100 a school year. Students are required to secure the usual instruments needed for the various diagnostic examinations of patients.

MEDICAL CENTER BOOKSTORE

The Medical Center Bookstore, located on the second floor of the College of Physicians and Surgeons, is maintained for the convenience of the students and staff of the Medical Center schools and hospitals. The store carries a full stock of textbooks and all other student supplies. Substantial savings are effected whenever the rules of manufacturers and publishers permit. The store is open on weekdays from 8:45 a.m. to 5:30 p.m.

OFFICERS OF INSTRUCTION

PROFESSORS, ASSOCIATE PROFESSORS, AND ASSISTANT PROFESSORS INCLUDING THOSE IN THE GRADUATE PROGRAM

- ABBOTT, MARGUERITE, *Assistant Professor of Occupational Therapy*; B.S., Tufts, 1947; O.T.R., Boston, 1925
- ABELL, LIESE L., *Assistant Professor of Biochemistry*; Ph.D., Frankfurt, 1935
- ACKERMAN, NATHAN, *Associate Clinical Professor of Psychiatry*; A.B., Columbia, 1929; M.D., 1933
- ADA, ALEXANDER E. W., *Associate Clinical Professor of Surgery*; B.A., Queen's (Ontario), 1923; M.D., 1926
- ADLERSBERG, DAVID, *Assistant Clinical Professor of Medicine*; M.D., Vienna, 1921
- AGATE, FREDERICK J., *Associate Professor of Anatomy*; A.B., Columbia, 1932; Ph.D., 1949
- ALEXANDER, HATTIE E., *Professor of Pediatrics*; A.B., Goucher, 1923; M.D., Johns Hopkins, 1930
- ALTMAN, HARRY S., *Associate Clinical Professor of Pediatrics*; M.D., New York University, 1921
- ALTMANN, FRANZ, *Clinical Professor of Otolaryngology*; M.D., Vienna, 1925
- AMBROSE, GEORGE B., *Assistant Professor of Clinical Orthopedic Surgery*; A.B., Columbia, 1940; M.D., 1943
- AMENDOLA, FREDERICK H., *Associate Clinical Professor of Surgery*; B.S., College of the City of New York, 1923; M.D., Cornell, 1927
- AMOLS, WILLIAM, *Assistant Professor of Clinical Neurology*; A.B., New York University, 1938; M.D., 1942
- ANDERSEN, DOROTHY H., *Professor of Pathology*; A.B., Mt. Holyoke, 1922; M.D., Johns Hopkins, 1926; Med.Sc.D., Columbia, 1935
- ANDERSON, ODIN W., *Adjunct Associate Professor of Administrative Medicine*; A.B., Wisconsin, 1937; A.M., 1938; A.B., Michigan, 1940; Ph.D., 1948
- ANTELL, MICHAEL, *Adjunct Assistant Professor of Public Health Practice*; M.D., Long Island College, 1926; M.P.H., Harvard, 1939
- ANTENUCCI, ARTHUR J., *Associate Clinical Professor of Medicine*; B.S., College of the City of New York, 1926; M.D., Columbia, 1930
- ARANOW, HENRY, *Assistant Professor of Clinical Medicine*; A.B., Harvard, 1935; M.D., Columbia, 1938
- BACHMAN, ARNOLD L., *Assistant Professor of Radiology*; B.S., New York University, 1931; M.D., 1934
- BAILEY, FREDERICK R., *Clinical Professor of Medicine*; A.B., Princeton, 1924; M.D., Johns Hopkins, 1928
- BAKER, DANIEL C., JR., *Clinical Professor of Otolaryngology*; A.B., Pennsylvania, 1929; M.D., Jefferson, 1933; Med.Sc.D., Columbia, 1939
- BAKER, DAVID H., *Assistant Professor of Radiology*; M.D., Boston, 1951
- BALDWIN, JOHN M., JR., *Assistant Professor of Clinical Medicine*; M.D., Columbia, 1939
- BALSER, BENJAMIN A., *Assistant Clinical Professor of Psychiatry*; A.B., Rochester, 1926; M.A., Harvard, 1927; M.D., Buffalo, 1931; Med.Sc.D., Columbia, 1937
- BARACH, ALVAN L., *Clinical Professor of Medicine*; M.D., Columbia, 1919
- BARKER, HAROLD G., *Associate Professor of Clinical Surgery*; A.B., Utah, 1939; M.D., Pennsylvania, 1943
- BARKER, LESLIE P., *Associate Clinical Professor of Dermatology*; M.D., Columbia, 1927
- BARNARD, MARGARET W., *Associate Professor of Public Health Practice*; A.B., Smith, 1917; M.D., Cornell, 1923; D.P.H., Johns Hopkins, 1935
- BARONOFSKY, IVAN D., *Clinical Professor of Surgery*; B.S., California, 1938; Ph.D., Minnesota, 1947; M.D., Marquette, 1943
- BARTELSTONE, HERBERT J., *Assistant Professor of Pharmacology*; B.S., College of the City of New York, 1942; D.D.S., Columbia, 1945
- BASEK, MILOS, *Assistant Professor of Clinical Otolaryngology*; M.D., Charfe's, 1945
- BASSETT, CHARLES A. L., *Assistant Professor of Orthopedic Surgery*; M.D., Columbia, 1948
- BAUMAN, WILLIAM A., *Assistant Clinical Professor of Pediatrics*; B.S., Harvard, 1943; M.D., Columbia, 1947
- BAUMGARTEN, HAROLD, JR., *Assistant Professor of Administrative Medicine*; A.B., Willamette, 1945
- BECKMANN, ALBERT J., *Assistant Professor of Public Health Practice*; A.B., Cornell, 1938; M.S., North Carolina, 1941; M.D., Wake Forest, 1945
- BEGG, CHARLES F., *Assistant Professor of Pathology*; A.B., Boston, 1935; M.D., Harvard, 1939
- BEISER, SAM M., *Associate Professor of Microbiology*; Ph.D., Columbia, 1951
- BENDER, LAURETTA, *Clinical Professor of Psychiatry*; M.A., Chicago, 1923; M.D., State Univ. of Iowa, 1926
- BENDER, MORRIS B., *Clinical Professor of Neurology*; M.D., Pennsylvania, 1931
- BENNETT, MICHAEL V. L., *Assistant Professor of Neurology*; Ph.D., Oxford, 1957
- BENNINGHOFF, DANIEL W., *Assistant Professor of Pathology*; A.B., Yale, 1949; M.D., Columbia, 1953
- BERGER, AGNES P., *Assistant Professor of Biostatistics*; A.M., Columbia, 1944; Ph.D., Budapest, 1939
- BERGMANN, FELIX G., *Visiting Professor of Neurology*; M.D., Berlin, 1933; Ph.D., 1933
- BERKE, RAYNOLD N., *Assistant Clinical Professor of Ophthalmology*; A.B., Minnesota, 1926; M.B., 1928; M.D., 1929
- BERNARD, VIOLA W., *Associate Clinical Professor of Psychiatry*; B.S., New York University, 1933; M.D., Cornell, 1936
- BICKERMAN, HYLAN, *Associate Clinical Professor of Medicine*; A.B., Columbia, 1934; M.D., New York University, 1939
- BLAKEMORE, ARTHUR H., *Associate Professor of Clinical Surgery*; B.S., William and Mary, 1918; M.D., Johns Hopkins, 1922
- BLANC, WILLIAM A., *Assistant Professor of Pathology*; B.A., College of Geneva, 1940; M.D., University of Geneva, 1947; Ph.D., 1952
- BLUESTONE, EPHRAIM M., *Adjunct Assistant Professor of Administrative Medicine*; B.S., Columbia, 1913; M.D., 1916

- BLUMENTHAL, SIDNEY, *Associate Professor of Clinical Pediatrics*; B.S., Iowa, 1933; M.D., 1933
- BOTH, CARL B., *Assistant Clinical Professor of Neurology*; A.B., Union, 1938; M.D., Albany, 1942
- BORDLEY, JAMES, III, *Clinical Professor of Medicine*; Ph.B., Yale, 1923; M.D., Johns Hopkins, 1927
- BRADLEY, STANLEY E., *Professor of Medicine*; A.B., Johns Hopkins, 1934; M.D., Maryland, 1938
- BRAGG, EVERETT C., *Assistant Clinical Professor of Orthopedic Surgery*; A.B., Cornell, 1936; M.D., 1940
- BRAND, LEONARD, *Assistant Professor of Anesthesiology*; B.S., Yale, 1946; M.D., Columbia, 1949
- BRISCOE, WILLIAM A., *Assistant Professor of Medicine*; B.A., Oxford, 1939; M.A., 1941; B.M., B.Ch., 1942; D.M., 1951
- BROWN, DONALD E., *Assistant Professor of Pathology*; M.D., Harvard, 1943
- BROWN, HAROLD W., *Professor of Parasitology*; A.B., Kalamazoo, 1924; M.S., Kansas State, 1925; Sc.D., Johns Hopkins, 1928; M.D., Vanderbilt, 1933; D.P.H., Harvard, 1936; LL.D., (hon.), Puerto Rico, 1954
- BROWN, NORTON S., *Assistant Clinical Professor of Medicine*; A.B., Stanford, 1925; M.D., 1928
- BRUCE, GORDON M., *Professor of Clinical Ophthalmology*; B.A., M.D., and C.M., Dalhousie, 1925; D.Ophth., Oxford, 1928; Med.Sc.D., Columbia, 1934
- BRUCH, HILDE, *Clinical Professor of Psychiatry*; B.A., Muenchen-Gladbach, 1923; M.D., Freiburg, 1929
- BRUENN, HOWARD G., *Assistant Clinical Professor of Medicine*; A.B., Columbia, 1925; M.S., 1933; Med.Sc.D., 1934; M.D., Johns Hopkins, 1929
- BRUMFIELD, WILLIAM R., *Adjunct Associate Professor of Public Health Practice*; B.S., Virginia Polytechnic, 1926; M.D., Virginia, 1930; M.P.H., Johns Hopkins, 1935
- BRUSH, JOHN M., *Associate Clinical Professor of Pediatrics*; B.S., Princeton, 1921; M.D., Columbia, 1925
- BUSHLE, ARTHUR, *Adjunct Associate Professor of Dental Public Health Practice*; A.B., Brooklyn, 1940; D.D.S., Columbia, 1943; M.P.H., 1947
- BYSSHE, STANLEY M., *Associate Professor of Clinical Obstetrics and Gynecology*; A.B., Harvard, 1927; M.D., 1931
- CAFFEY, JOHN, *Professor of Radiology*; A.B., Michigan, 1916; M.D., 1919
- CALLAHAN, MARY E., *Associate Professor of Physical Therapy*; R.N., Clinton Hospital, 1937; R.P.T., Posse College, 1940; A.M., Columbia, 1955
- CAMPBELL, JAMES B., *Assistant Professor of Neurological Surgery*; A.B., Harvard, 1931; M.D., 1935
- CARDEN, GEORGE A., JR., *Assistant Clinical Professor of Medicine*; Ph.B., Yale, 1931; M.D., 1935
- CARPENTER, MALCOLM B., *Associate Professor of Anatomy*; A.B., Columbia, 1943; M.D., Long Island, 1947
- CARR, ARTHUR C., *Associate Professor of Medical Psychology*; Ph.D., Chicago, 1952
- CARROLL, ROBERT E., *Assistant Clinical Professor of Orthopedic Surgery*; A.B., Yale, 1938; M.D., 1942
- CARTER, SIDNEY, *Associate Professor of Clinical Neurology*; A.B., Dartmouth, 1934; M.D., Boston, 1938
- CATTELL, JAMES P., *Assistant Clinical Professor of Psychiatry*; A.B., Miami, 1938; M.D., Harvard, 1942
- CAVANAGH, WILLIAM V., *Associate Clinical Professor of Obstetrics and Gynecology*; M.D., Syracuse, 1924
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- WAELSCH, HEINRICH B., *Professor of Biochemistry*; M.D., Prague, 1929; Ph.D., 1930
- WAKERLIN, GEORGE, *Clinical Professor of Physiology*; B.S., Chicago, 1925; Ph.D., 1926; M.D., Rush, 1926
- WALCOTT, WILLIAM W., *Associate Professor of Physiology*; A.B., Yale, 1933; Ph.D., Columbia, 1944
- WALTNER, JULES, *Associate Professor of Clinical Otolaryngology*; M.D., University of Debrecen (Hungary), 1933
- WANG, SHIH-CHUN, *Professor of Pharmacology*; B.S., Yenching, 1931; M.D., Peiping Union Medical College, 1935; Ph.D., Northwestern, 1940
- WASSERMAN, LOUIS R., *Assistant Clinical Professor of Medicine*; A.B., Harvard, 1931; M.D., Rush, 1935
- WATKINS, MELVIN B., *Associate Clinical Professor of Orthopedic Surgery*; A.B., Utah, 1930; M.B., Northwestern, 1935; M.D., 1936
- WEBER, JOHN, *Assistant Clinical Professor of Psychiatry*; A.B., Duke, 1939; M.D., Yale, 1943
- WEEKS, DAVID M., *Assistant Clinical Professor of Surgery*; M.D., Michigan, 1927
- WEIMAR, VIRGINIA, *Assistant Professor of Ophthalmology*; B.S., Oregon, 1944; M.S., 1947; Ph.D., Pennsylvania, 1951
- WEINGARTEN, BERTHOLD, *Assistant Clinical Professor of Medicine*; M.D., Frankfurt, 1922
- WEINSTOCK, HARRY I., *Associate Clinical Professor of Psychiatry*; A.B., Columbia, 1920; M.D., 1923
- WEISS, BENJAMIN, *Assistant Professor of Biochemistry*; B.S., Iowa, 1944; Ph.D., Illinois, 1949
- WEITZEN, HYMAN G., *Assistant Clinical Professor of Neurology*; A.B., New York University, 1934; M.D., 1938
- WELLS, JOSEPHINE S., *Associate Professor of Radiology*; A.B., Barnard, 1932; M.D., Columbia, 1933
- WERNER, SIDNEY C., *Associate Professor of Clinical Medicine*; A.B., Columbia, 1929; M.D., 1932; Med.Sc.D., 1937

- WERTHEIM, ARTHUR R., *Associate Professor of Medicine*; A.B., Dartmouth, 1935; M.D., Jefferson, 1939
- WHEELER, MAYNARD C., *Clinical Professor of Ophthalmology*; A.B., Stanford, 1926; M.D., Columbia, 1929; Med.Sc.D., 1938
- WHITTIER, JOHN R., *Assistant Clinical Professor of Psychiatry*; A.B., Harvard, 1939; M.D., Columbia, 1943
- WILCOX, ELIZABETH, *Assistant Professor of Nursing*; A.B., Mount Holyoke, 1924
- WILCOX, HERBERT B., JR., *Assistant Clinical Professor of Medicine*; A.B., Yale, 1930; M.D., Columbia, 1934
- WILLIAMS, ROGER W., *Associate Professor of Medical Entomology*; B.S., Illinois, 1939; M.S., 1941; Ph.D., Columbia, 1947
- WILSON, IRWIN B., *Associate Professor of Biochemistry*; B.S., College of the City of New York, 1941; M.A., Columbia, 1947; Ph.D., 1948
- WISHAM, LAWRENCE H., *Assistant Clinical Professor of Physical Medicine and Rehabilitation*; B.S., New York University, 1938; M.D., Chicago, 1943
- WOLCOTT, DELPHINE, *Assistant Professor of Nursing*; B.S., Columbia, 1926
- WOLF, ABNER, *Professor of Neuropathology*; A.B., Columbia, 1923; M.D., 1926
- WOLF, BERNARD S., *Associate Clinical Professor of Radiology*; B.S., New York University, 1932; M.D., 1936
- WOLFF, JAMES A., *Associate Clinical Professor of Pediatrics*; A.B., Harvard, 1935; M.D., New York University, 1940
- WOOD, CHARLES L., *Associate Clinical Professor of Pediatrics*; B.S., New York University, 1926; M.D., Yale, 1930
- WOODMAN, DE GRAAF, *Clinical Professor of Otolaryngology*; B.S., Cornell, 1917; M.D., 1926
- WYCOFF, CHARLES C., *Assistant Professor of Anesthesiology*; A.B., California, 1941; M.D., 1943
- WYLLIE, ROBERT H., *Clinical Professor of Surgery*; Ph.B., Yale, 1927; M.D., Columbia, 1931
- YAHR, MELVIN D., *Assistant Dean; Associate Professor of Clinical Neurology*; A.B., New York University, 1939; M.D., 1943
- YU, T'SAI-FAN, *Assistant Clinical Professor of Medicine*; B.A., Ginling College, 1932; M.D., Peiping Union Medical College, 1936
- YUE, SHYH-JONG, *Assistant Professor of Physical Medicine and Rehabilitation*; M.D., National College of Medicine, Shanghai, 1938
- ZAMENHOF, STEPHEN, *Associate Professor of Biochemistry*; M.E., Warsaw Polytechnic, 1933; D.Tech.Sc., 1936; Ph.D., Columbia, 1949
- ZIMMERMAN, HARRY M., *Professor of Pathology*; B.S., Yale, 1924; M.D., 1927
- ZINSSER, HANS H., *Assistant Professor of Clinical Urology*; B.S., Harvard, 1938; M.D., Columbia, 1942
- ZINTEL, HAROLD A., *Clinical Professor of Surgery*; B.S., Akron, 1934; M.D., Pennsylvania, 1938
- ZUBIN, JOSEPH, *Professor of Medical Psychology*; A.B., Johns Hopkins, 1921; Ph.D., Columbia, 1932
- SLANETZ, CHARLES A., *Curator of Animal Husbandry*; B.S., Connecticut, 1922; M.S., 1923; Ph.D., Yale, 1926

For names of associates, lecturers, and assistants, see departmental rosters (pages 27 ff.)

INTERNSHIP PLACEMENTS

CLASS OF 1959

- Allen, Fred H.—University of Virginia, Charlottesville, Va.
 Alving, Ralph E.—Jackson Memorial Hospital, Miami, Fla.
 Applebaum, William S.—Montefiore Hospital, New York City
 Baker, Lester—Hospital of the University of Pennsylvania, Philadelphia, Pa.
 Barrett, C. Redington—St. Luke's Hospital, New York City
 Barth, Donald E.—Bellevue Hospital, New York City
 Baum, Richard S.—Philadelphia General Hospital, Philadelphia, Pa.
 Befeler, David—St. Vincent's Hospital, New York City
 Benjamin, William B.—Mary Fletcher Hospital, Burlington, Vt.
 Berkman, Peter M.—Boston City Hospital, Boston, Mass.
 Brittin, Geoffrey M.—Johns Hopkins Hospital, Baltimore, Md.
 Burks, William P.—St. Luke's Hospital, New York City
 Byrne, Earl B.—Presbyterian Hospital, New York City
 Cantwell, Nelson H.—Bellevue Hospital, New York City
 Carter, James R., Jr.—Massachusetts General Hospital, Boston, Mass.
 Civan, Mortimer M.—Presbyterian Hospital, New York City
 Clark, Cornelius J.—Albany Hospital, Albany, N.Y.
 Cohen, Howard—Mount Sinai Hospital, New York City
 Collier, Robert H.—University of California Hospital, San Francisco, Calif.
 Collins, John A.—Presbyterian Hospital, New York City
 Costantin, LeRoy L.—Presbyterian Hospital, New York City
 Cukier, Daniel S.—Long Island Jewish Hospital, New York City
 Davidoff, Frank F.—Massachusetts General Hospital, Boston, Mass.
 Davidson, Charles B.—Presbyterian Hospital, New York City
 David, Jessica G.—St. Luke's Hospital, New York City
 Druss, Richard G.—Massachusetts Memorial Hospital, Boston, Mass.
 Edgar, Malcolm S., Jr.—St. Luke's Hospital, New York City
 Eidenger, David—Royal Victoria Hospital, Montreal, Que.
 Eleuteri, A. John—Johns Hopkins Hospital, Baltimore, Md.
 Epstein, Manfred D.—Bellevue Hospital, New York City
 Faust, Kenneth J.—Los Angeles County Hospital, Los Angeles, Calif.
 Ferber, Andrew S.—Michael Reese Hospital, Chicago, Ill.
 First, Robert A.—Peter Bent Brigham Hospital, Boston, Mass.
 Forde, Kenneth A.—Bellevue Hospital, New York City
 Foulke, John D.—North Carolina Baptist Hospital, Winston-Salem, N.C.
 Freeman, Guy C.—Kings County Hospital, Brooklyn, N.Y.
 Gardner, Lee Robbins—St. Luke's Hospital, New York City
 Gilfillan, John T., Jr.—Los Angeles County Hospital, Los Angeles, Calif.
 Ginsberg, George L.—Jackson Memorial Hospital, Miami, Fla.
 Ginsberg, Stanley A.—Mount Sinai Hospital, New York City
 Gordon, I. Bradley—Michael Reese Hospital, Chicago, Ill.
 Grainger, David W.—Presbyterian Hospital, New York City
 Gutmann, Ludwig—University Hospitals, Madison, Wis.
 Herskovic, Teodoro—Mount Sinai Hospital, New York City
 Hillman, Robert S.—Presbyterian Hospital, New York City
 Hollander, Charles—Bellevue Hospital, New York City
 Hulka, Barbara S.—U.S. Public Health Service
 Izard, Mark W.—Hartford Hospital, Hartford, Conn.
 Jesse, Mary Jane—Bronx Municipal Hospital, New York City
 Johnson, Theodore H.—University of Chicago Clinics, Chicago, Ill.
 Jones, Elynn P.—Ohio State University Hospital, Columbus, Ohio
 Jones, Robert H.—Jackson Memorial Hospital, Miami, Fla.
 Kanter, Ira E.—Beth Israel Hospital, Boston, Mass.
 Kaplan, Edward S.—Presbyterian Hospital, New York City
 Keller, Jean B.—University of Utah Hospitals, Salt Lake City, Utah
 Kundel, Harold L.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
 Lietman, Paul S.—Johns Hopkins Hospital, Baltimore, Md.
 Linwood, Richard A.—St. Luke's Hospital, New York City
 London, Fred A.—Jackson Memorial Hospital, Miami, Fla.
 Ludes, Bernard F.—University of Minnesota Hospitals, Minneapolis, Minn.
 MacDonald, Carlton A.—St. Luke's Hospital, New York City
 McConnell, Donald V.—Johns Hopkins Hospital, Baltimore, Md.
 McHugh, Burton P.—St. Luke's Hospital, New York City
 McKinney, Alexander S.—St. Luke's Hospital, New York City
 Michelsen, Walter J.—St. Luke's Hospital, New York City
 Middleton, Augustus L.—Presbyterian Hospital, New York City
 Miller, Orlando P.—Roosevelt Hospital, New York City

- Moscarella, Alfred A.—St. Luke's Hospital, New York City
 Mott, Peter D.—Massachusetts Memorial Hospital, Boston, Mass.
 Mueller, Mark N.—University of Chicago Clinics, Chicago, Ill.
 Muiznieks, Ansis—Los Angeles County Hospital, Los Angeles, Calif.
 Munsick, George—St. Luke's Hospital, New York City
 Munsie, William J.—New England Center Hospital, Boston, Mass.
 Myers, Joseph K.—Syracuse Medical Center, Syracuse, N.Y.
 Newman, Matthew—King County Hospital, Seattle, Wash.
 Nourok, David S.—University of California Hospital, San Francisco, Calif.
 Petersen, Robert A.—Presbyterian Hospital, New York City
 Petersen, Veronica S.—Bellevue Hospital, New York City
 Phillips, Gene M.—Stanford University Hospital, Palo Alto, Calif.
 Pi-Sunyer, F. Xavier—St. Luke's Hospital, New York City
 Pines, Joseph—Peter Bent Brigham Hospital, Boston, Mass.
 Pittman, Fred E.—The New York Hospital, New York City
 Plaut, Thomas F.—Bellevue Hospital, New York City
 Prescott, Richmond—Massachusetts General Hospital, Boston, Mass.
 Pressman, Peter I.—Bellevue Hospital, New York City
 Prothero, Sherman R.—Mary Imogene Bassett Hospital, Cooperstown, N.Y.
 Pugatch, Donald—Massachusetts Memorial Hospital, Boston, Mass.
 Raffman, Beverly G.—Morristown Memorial Hospital, Morristown, N.J.
 Reiss, Robert M.—St. Luke's Hospital, New York City
 Rohde, Richard L.—Los Angeles County Hospital, Los Angeles, Calif.
 Roome, Norman S.—St. Clare's Hospital, New York City
 Rosen, Samuel M.—Bronx Municipal Hospital, New York City
 Rosenberg, Arthur H.—University of Illinois Research and Educational Hospital, Chicago, Ill.
 Rosenfield, Allan G.—Beth Israel Hospital, Boston, Mass.
 Schieffelin, John W.—Roosevelt Hospital, New York City
 Schwartz, Arnold—University of California Hospital, Los Angeles, Calif.
 Shaw, William V.—Presbyterian Hospital, New York City
 Sigler, Paul B.—Presbyterian Hospital, New York City
 Simon, Bennett—Montefiore Hospital, New York City
 Slack, Warner V.—University Hospitals, Madison, Wis.
 Smith, Martin J.—Methodist Hospital, Brooklyn, N.Y.
 Spitzer, Kenneth H.—Syracuse Medical Center, Syracuse, N.Y.
 Storm, George—Mary Hitchcock Memorial Hospital, Hanover, N.H.
 Strauch, Berish—Bellevue Hospital, New York City
 Strehan, Theodore L.—Montefiore Hospital, New York City
 Tegtmeier, Gamber F.—University Hospitals, Madison, Wis.
 Tikoff, Gerasim—University of Chicago Clinics, Chicago, Ill.
 Vadeika, Edward—Methodist Hospital, Brooklyn, N.Y.
 Wallace, Seymour—Methodist Hospital, Brooklyn, N.Y.
 Weech, Alexander A., Jr.—Methodist Hospital, Brooklyn, N.Y.
 Weems, Charles E.—Pennsylvania Hospital, Philadelphia, Pa.
 Wender, Paul H.—Barnes Hospital, St. Louis, Mo.
 Wheeler, Leonard III—Strong Memorial—Rochester Municipal Hospitals, Rochester, N.Y.
 Widrow, David R.—Bronx Municipal Hospital Center, New York City
 Wilson, George C., Jr.—Stanford University Hospitals, San Francisco, Calif.
 Wolf, Sheldon M.—Bellevue Hospital, New York City
 Wosnitzer, Maclyn E.—St. Luke's Hospital, New York City

REGISTER OF STUDENTS

FOURTH-YEAR CLASS—CLASS OF JUNE, 1960

Alling, Stearly A.B., Wellesley, 1956	Montclair, N.J.	Fabrega, Horacio, Jr. A.B., Pennsylvania, 1956	Miami, Fla.
Anderson, Richard Arnold A.B., Wesleyan, 1956	Greenwich, Conn.	Forker, George Norman A.B., Yale, 1956	Pittsburgh, Pa.
Anderson, Richard Dawson A.B., Birmingham Southern, 1956	Birmingham, Ala.	Forwand, Stanley Arthur A.B., Union, 1956	New York City
Appel, Stanley H. A.B., Harvard, 1954	Andover, Mass.	Ginsberg, Joel A.B., Princeton, 1956	Brooklyn, N.Y.
Beller, Barry Maurice A.B., Columbia, 1956	Mahopac, N.Y.	Glezen, John Marcena A.B., Hamilton, 1956	Cortland, N.Y.
Blumenthal, Jesse Arthur A.B., Columbia, 1956	Brooklyn, N.Y.	Glinmann, Walter Henry A.B., Columbia, 1956	Mamaroneck, N.Y.
Bradley, Edward B. A.B., Hamilton, 1956	Utica, N.Y.	Goldfinger, Stephen Edward A.B., Princeton, 1956	New York City
Braun, Peter B.S., Yale, 1956	Bridgeport, Conn.	Hanson, Kenneth Charles A.B., St. Olaf, 1956	Watertown, S.D.
Brownlee, William Harry B.S., Davidson, 1956	Charlotte, N.C.	Heimark, Gregory James A.B., St. Olaf, 1956	New York City
Callan, Desmond A.B., Columbia, 1950	New York City	Heller, Stanley Samuel A.B., Yale, 1956	New York City
Canellos, George Peter A.B., Harvard, 1956	East Boston, Mass.	Hersh, Evan Manuel B.S., College of the City of New York, 1956	New York City
Chase, Richard A. A.B., University of Chicago, 1952	South Orange, N.J.	Hicks, William Ray A.B., Princeton, 1956	New York City
Choy, Martin Frank A.B., Yale, 1956	Jersey City, N.J.	Hollander, Joshua A.B., Columbia, 1956	New York City
Clark, Julian Joseph A.B., Princeton, 1956	Brooklyn, N.Y.	Holsclaw, Douglas, Jr. A.B., Arizona, 1956	Tucson, Ariz.
Clark, Rita W. B.S., Brooklyn, 1956	Brooklyn, N.Y.	Hoppin, Frederic Gallatin, Jr. A.B., Harvard, 1956	New York City
Clutz, Richard Baker A.B., Princeton, 1956	St. Davids, Pa.	Howes, Edward Lee, Jr. A.B., Yale, 1956	Dobbs Ferry, N.Y.
Coats, Thomas F. A.B., Kentucky, 1952	Lexington, Ky.	Janin, Matthew Joel A.B., Columbia, 1956	New York City
Coffey, Edward Lyman A.B., Princeton, 1956	Westfield, N.J.	Johnson, John Richard B.S., Ohio, 1956	Quaker City, Ohio
Cohen, Michael Irwin A.B., Columbia, 1956	New York City	Kallen, Roland Gilbert A.B., Amherst, 1956	Newark, N.J.
Cohen, Peter Jacob A.B., Princeton, 1956	New York City	Kane, Kendal Kent A.B., Princeton, 1955	Dover, Ohio
Cummings, Dean Winfred A.B., Montana State, 1952	Plains, Mont.	Kao, Priscilla M. N. A.B., Pennsylvania, 1956	Singapore, Malaya
Dawes, Henry F. A.B., Princeton, 1956	Englewood, N.J.	Kaufman, Roger Stuart A.B., Princeton, 1956	Monroe, N.Y.
Denner, Joseph Leroy A.B., Westminster, 1953	Alva, Okla.	Keller, Howard Irving A.B., Princeton, 1956	Plainfield, N.J.
Dennisk, Leonard Gainsworth, Jr. A.B., Colgate, 1956	Hamburg, N.Y.	King, Donald Latham A.B., Stanford, 1956	Pasadena, Calif.
DeSimone, Arthur Robert B.S., Manhattan, 1956	Glendale, N.Y.	Klein, Herbert Alan A.B., Columbia, 1956	Upper Montclair, N.J.
Doherty, Richard Arthur A.B., Bowdoin, 1954	Newport, Me.	Korhammer, Allan Francis A.B., Princeton, 1956	Mt. Vernon, N.Y.
Dolganos, Ellen Marie A.B., Vassar, 1956	Jersey City, N.J.	Kroll, Arnold Joseph A.B., Princeton, 1956	Miami Beach, Fla.
Downey, James Lewis A.B., Yale, 1956	Darien, Conn.	Kronfeld, Peter Paul A.B., Wesleyan, 1956	Wilmette, Ill.
Doyle, George B. A.B., Harvard, 1956	Worcester, Mass.	Leach, Charles Nelson, Jr. A.B., Amherst, 1956	Newfane, Vt.
Dunne, Peter B. A.B., Harvard, 1955	Washington, D.C.	Lehwalder, Laurus Waldemar B.S., Oregon State, 1952	Butte, Mont.
Eddison, Grace Gene A.B., Wellesley, 1949	Riverdale, N.Y.	Lennon, Arthur Joseph A.B., Fordham, 1956	New York City
Ehrmann, Norbert August A.B., Princeton, 1953	Englewood, N.J.	MacLean, Neil Murdo A.B., Hamilton, 1956	Bryan, Conn.
Emde, Robert Newcomb A.B., Dartmouth, 1956	Katonah, N.Y.	MacLowry, James Don A.B., Yale, 1956	New York City

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Campbell, Allen Barry A.B., Princeton, 1957	Cleveland Heights, Ohio	Harvey, Seth A.B., Princeton, 1955	New York City
Christensen, Edward Warren A.B., Columbia, 1957	New York City	Hendricks, Ed Jerald A.B., Rice Institute, 1957	Dallas, Tex.
Clark, Hugh A.B., Williams, 1957	Oldwick, N.J.	Hope, Peter Blanchard A.B., Harvard, 1957	New York City
Clevenger, Joseph Henry, Jr. A.B., Princeton, 1957	Muncie, Ind.	Janoski, Alfonso Hubert A.B., Seton Hall, 1957	Bloomfield, N.J.
Cohen, Martin Noel A.B., Harvard, 1957	Passaic, N.J.	Kalinske, Robert Wayne A.B., Yale, 1957	Tucson, Ariz.
Cohen, Stanley A.B., Columbia, 1957	Brooklyn, N.Y.	Katz, Edward Lyle A.B., Princeton, 1957	Hartford, Conn.
Cohn, Lawrence Jerome B.S., Franklin and Marshall, 1957	Brooklyn, N.Y.	Katz, Leonard Allen A.B., Yale, 1957	Buffalo, N.Y.
Corning, Howard Burt A.B., Harvard, 1957	Syosset, N.Y.	Kim, Dong Su A.B., Bowdoin, 1957	Taejon, Korea
Cross, Carroll E. A.B., Pomona, 1957	Seattle, Wash.	Knebel, Ruthmary Spear A.B., Mount Holyoke, 1956	Canaan, N.Y.
Curran, John Patrick A.B., Saint Mary's, 1957	St. Paul, Minn.	Kohler, Peter Francis A.B., Princeton, 1957	Milwaukee, Wis.
Danes, Betty Shannon A.B., Mount Holyoke, 1948	Brightwaters, N.Y.	Kohn, Leonard David A.B., Columbia, 1957	Easton, Pa.
M.A., Texas, 1949		Kovel, Joel Stephen B.S., Yale, 1957	Roosevelt, N.Y.
Ph.D., Iowa, 1952		Labourdette, Irene Lois A.B., Oberlin, 1952	Lincoln Park, N.J.
Dans, Peter Emanuel B.S., Manhattan, 1957	New York City	M.A., Iowa, 1954	
Dantzler, William Hoyt A.B., Princeton, 1957	Milwaukee, Wis.	Lemlich, Arthur B.S., Columbia, 1957	New York City
Decker, Norman A.B., Columbia, 1957	New York City	Levitzky, Munro Joseph A.B., Columbia, 1957	Brooklyn, N.Y.
Dennis, Allen Johnson, Jr. A.B., Rice Institute, 1957	Macon, Ga.	Lightdale, Mayer Raynes A.B., Princeton, 1957	Jersey City, N.J.
Deul, Thomas Franklin A.B., Princeton, 1957	Short Hills, N.J.	Luftschein, Stanley A.B., Columbia, 1957	Flushing, N.Y.
DeWitt, Robert James A.B., Carleton, 1957	Oconto, Wis.	Luikart, William Ernst A.B., Columbia, 1957	Woodhaven, N.Y.
Duberstein, Joel Lawrence A.B., Princeton, 1957	Bayonne, N.J.	Mack, Thomas McCulloch A.B., Carleton, 1957	Minden, Nev.
Duncan, William Y., III B.S., Yale, 1953	New Haven, Conn.	Maenza, Ronald Morton A.B., Columbia, 1957	Jackson Heights, N.Y.
Durante, Lawrence John A.B., Princeton, 1957	Long Island City, N.Y.	Marcuse, Donald James A.B., Harvard, 1957	New York City
Dwyer, Edward Michael A.B., Columbia, 1957	Plymouth, Pa.	Marglin, Arnold Gershaw A.B., Harvard, 1957	Hollywood, Calif.
Emery, Edward Stanley, III A.B., Princeton, 1957	Milton, Mass.	Melges, Frederick Towne A.B., Princeton, 1957	Battle Creek, Mich.
Finkel, Jerry Bernard A.B., Columbia, 1957	New York City	Meyer, James Hugh A.B., Princeton, 1957	Milwaukee, Wis.
Flemming, William Hare A.B., Yale, 1957	Columbus, Ohio	Meyerson, Arthur Theodore A.B., Columbia, 1957	New York City
Gale, James Lyman A.B., Harvard, 1957	Concord, Mass.	Millheiser, Peter John A.B., Columbia, 1957	New York City
Gilman, Richard Alan A.B., Williams, 1957	Swampscott, Mass.	Morgan, Walter Edward, III A.B., Wesleyan, 1957	Glen Ridge, N.J.
Glass, Joseph Lewis A.B., Princeton, 1957	Lynbrook, N.Y.	Mulcare, Robert John A.B., Princeton, 1957	Garden City, N.Y.
Golden, Gerald Samuel A.B., Princeton, 1957	Newark, N.J.	Nachamie, Benjamin Abraham A.B., Columbia, 1957	Brooklyn, N.Y.
Graham, Paul A. A.B., Princeton, 1956	Wheeling, W. Va.	Neer, Robert Marshall, Jr. A.B., Harvard, 1957	Urbana, Ohio
Gregory, Raymond Frederick A.B., Princeton, 1957	Galveston, Tex.	Nesti, Richard P. A.B., Columbia, 1954	West New York, N.J.
Grossbard, Lionel A.B., Columbia, 1957	Brooklyn, N.Y.	O'Connell, Francis Daniel A.B., Harvard, 1957	Uxbridge, Mass.
Grossman, Frederick Maurice A.B., Harvard, 1957	El Paso, Tex	Pfueger, Otto Henry, Jr. A.B., Reed, 1957	San Francisco, Calif.
Guggenheim, Frederick Gibson A.B., Yale, 1957	Washington, D.C.	Philip, James Louis B.S., Michigan, 1957	Worcester, Mass.
Gwyn, Paul Perkins, Jr. A.B., Princeton, 1957	West Jefferson, N.C.	Powell, William John, Jr. A.B., Harvard, 1957	Duxbury, Mass.

Pressman, David L. A.B., Harvard, 1957	Chelsea, Mass.	Weil, Richard, III A.B., Princeton, 1957	New York City
Redman, Helen Cornelia A.B., Rochester, 1957	Great Neck, N.Y.	Whaley, David Anthony A.B., Rochester, 1957	Kenmore, N.Y.
Reich, Paul Richard A.B., Princeton, 1957	Hackensack, N.J.	Wilson, Paul Tyler A.B., Columbia, 1954	New York City
Reichel, William A.B., Columbia, 1957	New York City	<i>Third Year: Class of June, 1961 121</i>	
Robbins, Michael Daniel, Jr. A.B., Amherst, 1955	West Englewood, N.J.	SECOND-YEAR CLASS—CLASS OF JUNE, 1962	
Robinson, James Alan A.B., Wesleyan, 1957	Mount Vernon, N.Y.	Ackerman, A. Bernard A.B., Princeton, 1958	Elizabeth, N.J.
Robinson, John Lee A.B., Yale, 1957	Omaha, Neb.	Allen, Thomas E. A.B., Princeton, 1958	Milwaukee, Wis.
Rosen, John Friesner A.B., Harvard, 1957	New York City	Augur, Newell A., Jr. B.E., Yale, 1958	St. Louis, Mo.
Ryan, John Francis A.B., Boston College, 1957	Jamaica Plain, Mass.	Baker, Fred L. A.B., Wabash, 1958	Owensboro, Ky.
Schuh, Sara Daley A.B., Vassar, 1957	New York City	Barlow, Peter B. A.B., Harvard, 1958	Englewood, N.J.
Schwarzberg, Jane Elizabeth A.B., Barnard, 1957	New York City	Behrens, Myles M. A.B., Yale, 1958	Brooklyn, N.Y.
Schwartzman, William Robert A.B., Columbia, 1957	New York City	Bell, Donald C. A.B., Wooster, 1953	Wooster, Ohio
Scott, Robert Henderson A.B., Carleton, 1957	Northfield, Minn.	B.D., Chicago, 1956	
2 Sheagren, John Newcomb A.B., Carleton, 1957	Rockford, Ill.	Bell, H. Glenn, Jr. A.B., Stanford, 1958	San Francisco, Calif.
Sherwood, Louis Maier A.B., Johns Hopkins, 1957	Hempstead, N.Y.	Berkes, Kenneth J., Jr. A.B., Hamilton, 1958	Baldwin, N.Y.
Skolnick, M. Leon A.B., Columbia, 1957	Forest Hills, N.Y.	Berman, Howard H. A.B., Duke, 1958	Silver Spring, Md.
Song, Chull Sung A.B., Birmingham Southern, 1957	Seoul, Korea	Bezahler, Stephen A.B., Williams, 1958	Camden, N.J.
Standfast, Susan Jane A.B., Wells, 1957	Binghamton, N.Y.	Brown, Courtney Warren A.B., Williams, 1957	Scarsdale, N.Y.
Stevenson, Donald Day A.B., Princeton, 1957	Tenafly, N.J.	Brown, Richard M. A.B., Princeton, 1958	Princeton, N.J.
Stouch, William Haydn A.B., Princeton, 1957	York, Pa.	Bruck, Harold M. A.B., Hamilton, 1958	Newark, N.J.
Strayer, Luther Milton, III A.B., Princeton, 1957	Stratford, Conn.	Brust, John C. M., Jr. A.B., Harvard, 1958	Syracuse, N.Y.
Stuart, Philip Frazer A.B., Bowdoin, 1957	Lakewood, Ohio	Buckley, Marcia A. A.B., Mount Holyoke, 1958	Wakeman, Ohio
Talbott, John Andrew A.B., Harvard, 1957	Eden (Buffalo), N.Y.	Bull, Sherman M. A.B., Yale, 1958	Riverdale, N.Y.
Teran, Irwin Burton A.B., Columbia, 1957	Flushing, N.Y.	Burruss, Donald A. A.B., Ripon, 1955	Wauwatosa, Wis.
Terry, Stephen A.B., B.S., Arizona, 1957	Tucson, Ariz.	B.S., M.S., Massachusetts Institute of Technology, 1956	
Thurer, Richard Jerome A.B., Princeton, 1957	Hicksville, N.Y.	Campbell, James M. A.B., Yale, 1958	South Bend, Ind.
Townsend, Eleanor Meneely A.B., Sarah Lawrence, 1957	New York City	Casazza, Albert R. A.B., Princeton, 1958	Secaucus, N.J.
Troy, Bart Lynch A.B., Georgetown, 1957	Melrose, Mass.	Cassileth, Peter A. A.B., Union, 1958	New York City
Tucker, Marjorie Jane A.B., Radcliffe, 1957	Brooklyn, N.Y.	Caton, Donald B.S., Yale, 1958	Washington, D.C.
Uprichard, Eleanor E. A.B., Rochester, 1958	Yonkers, N.Y.	Chao, Solan A.B., Cornell, 1954	New York City
Wanderer, Alan Anson A.B., Earlham, 1957	Woodside, N.Y.	Coates, Edward D. A.B., Yale, 1958	Glendale, Calif.
Wanger, Stephen Lewis A.B., Yale, 1957	Albany, N.Y.	Cohen, Donald S. A.B., Hamilton, 1958	Port Jervis, N.Y.
Watson, Charles Gray A.B., Princeton, 1957	Carnegie, Pa.	Cohen, Stanley J. A.B., Columbia, 1958	Brooklyn, N.Y.
Weber, Eric Taylor A.B., Oberlin, 1957	Clinton, N.Y.	Cohn, Peter F. A.B., Columbia, 1958	Scarsdale, N.Y.
		Coulis, Despine L. A.B., Smith, 1958	Salem, Mass.
		Covey, William G. A.B., Columbia, 1958	New York City

Dauber, Leonard G. A.B., Columbia, 1958	Brooklyn, N.Y.	Levine, Jonathan A.B., Columbia, 1958	Brooklyn, N.Y.
Dubin, Howard V. A.B., Columbia, 1958	New York City	Lovejoy, William P. A.B., Yale, 1956	Oldwick, N.J.
Duncan, William C., III A.B., Princeton, 1958	Northampton, Mass.	McCarroll, Henry R. A.B., Princeton, 1958	St. Louis, Mo.
Flagg, Stephen V. B.S., Yale, 1957	Englewood, N.J.	McGray, Richard S. A.B., Wesleyan, 1954	Columbus, Ohio
Flood, Barbara Joyce A.B., Wellesley, 1953	New York City	B.D., Yale, 1957	
Fogelberg, Earl Victor A.B., Princeton, 1958	Chicago, Ill.	Margolies, Lawrence Noel A.B., Columbia, 1958	New York City
Fox, Howard A. B.S., Union, 1954	Brooklyn, N.Y.	Margolies, Michael N. A.B., Harvard, 1958	Flushing, N.Y.
Ph.D., Columbia, 1958		Marks, Clement E., Jr. A.B., Dartmouth, 1958	Bethlehem, Pa.
Frankel, Herman Morris A.B., Columbia, 1958	Brooklyn, N.Y.	Miller, Robert L. A.B., Hamilton, 1958	Elmira, N.Y.
Franzone, Andrew J. A.B., Holy Cross, 1958	New York City	Moloy, Peter Jay A.B., Harvard, 1958	New York City
Gamble, Anne van N. A.B., Mount Holyoke, 1956	New York City	Mosher, Paul W. A.B., Harvard, 1958	Albany, N.Y.
Geller, Arthur S. A.B., Williams, 1958	Laurelton, N.Y.	Murphy, Scott A.B., Yale, 1958	Merion, Pa.
Gollance, Robert B. A.B., Harvard, 1958	Brooklyn, N.Y.	Nadel, Martin S. A.B., Hamilton, 1957	Brooklyn, N.Y.
Grant, John P., Jr. A.B., Amherst, 1954	New Canaan, Conn.	Nasr, Khosrow B.S., Yale, 1958	Tehran, Iran
Grant, Sandra Elisabeth A.B., Bryn Mawr, 1958	Liberty, N.Y.	Nisonson, Ian A.B., Columbia, 1958	New York City
¹ Graves, Mary L. A.B., Pennsylvania, 1958	Philadelphia, Pa.	Oppenheimer, Edward A. A.B., Columbia, 1958	New York City
Gray, Parke H. A.B., Williams, 1958	Hartford, Conn.	Orahood, Richard C. A.B., Ohio Wesleyan, 1958	Marysville, Ohio
Gutstein, Robert A. A.B., Colgate, 1958	Brooklyn, N.Y.	Pagliaro, Salvatore J. A.B., Columbia, 1958	New York City
Haft, Jacob I. A.B., Harvard, 1958	Belleville, N.J.	Parry, Peter V. A.B., Hofstra, 1958	Lynbrook, N.Y.
Hankin, Edwin A.B., Columbia, 1958	Brooklyn, N.Y.	Pascal, Robert R. A.B., Columbia, 1958	New York City
Herzberg, Robert M. A.B., Reed, 1958	Pacific Palisades, Calif.	Patek, David J. A.B., Harvard, 1958	New York City
Hirschhorn, Norbert A.B., Columbia, 1958	New York City	Pease, Paul J. A.B., Miami, 1958	Lewisburg, Ohio
Hurst, Fred S. A.B., Princeton, 1958	Brooklyn, N.Y.	Puchner, Peter J. A.B., Carleton, 1958	Manitowoc, Wis.
Immordino, Peter A. A.B., New York University, 1958	Yonkers, N.Y.	Purcell, Ganson, Jr. A.B., Williams, 1958	Washington, D.C.
Johnson, Warren D., Jr. B.S., Carroll, 1958	Gurnee, Ill.	Rappaport, Michael Lee A.B., Harvard, 1958	Glencoe, Ill.
Karliner, Joel S. A.B., Columbia, 1958	Union City, N.J.	Reber, Robert E. A.B., Ohio, 1958	Circleville, Ohio
Kelley, John A.B., Brown, 1957	Southampton, N.Y.	Reese, Thomas S. A.B., Harvard, 1957	Cleveland, Ohio
Kilburn, Howard Lee A.B., University of Washington, 1958	Wenatchee, Wash.	Romas, Nicholas A. A.B., Colgate, 1958	Endicott, N.Y.
Klein, William J., Jr. A.B., Cincinnati, 1958	Cincinnati, Ohio	Root, Elihu N. B.S., College of the City of New York, 1958	New York City
Kovach, John S. A.B., Princeton, 1958	Shaker Heights, Ohio	Rosen, Barbara J. B.S., Simmons, 1956	Dedham, Mass.
Kraut, Joel A. A.B., Princeton, 1958	Jersey City, N.J.	M.S., Vassar, 1958	
Kreek, Mary Jeanne A.B., Wellesley, 1958	Washington, D.C.	Rygorsky, Jerome E. A.B., New York University, 1958	Brooklyn, N.Y.
Lerner, Irving J. A.B., Yale, 1958	Cincinnati, Ohio	Schiff, Eugene R. A.B., Michigan, 1958	Cincinnati, Ohio
¹ Lettiere, Anthony C. B.S., Holy Cross, 1958	Hartford, Conn.	Schuster, Timothy S. A.B., Harvard, 1958	Hewlett, N.Y.
		Schwartz, Gabriel H. A.B., Princeton, 1958	Mount Vernon, N.Y.
		Seidenberg, Boyd H. A.B., Columbia, 1958	Bronxville, N.Y.

¹ Withdrew.

Sherman, Spencer E. A.B., Princeton, 1958	Englewood, N.J.	Waldbaum, Robert S. A.B., Columbia, 1958	Brooklyn, N.Y.
Silver, Stephen E. A.B., Princeton, 1958	Brooklyn, N.Y.	Walker, Barry R. A.B., Yale, 1958	Reading, Pa.
Smelzer, Timothy H. A.B., Hamilton, 1958	Pittsburgh, Pa.	Waterson, K. William, Jr. B.S., Washington and Lee, 1958	Tenafly, N.J.
Solomon, Henry A. A.B., Columbia, 1958	Brooklyn, N.Y.	Weight, Forrest F., Jr. A.B., Princeton, 1958	Middletown, N.Y.
Steele, Thomas H. B.S., Haverford, 1958	New Castle, Pa.	Weinstein, Joel David A.B., Princeton, 1958	Memphis, Tenn.
Steiner, Alton L. A.B., Harvard, 1958	Albany, N.Y.	Weksler, Marc E. A.B., Swarthmore, 1958	Brooklyn, N.Y.
Stewart, Franz H., Jr. A.B., Emory, 1958	Miami, Fla.	White, John J., Jr. A.B., Yale, 1958	Glen Rock, N.J.
Talbot, Bernard A.B., Columbia, 1958	New York City	Williams, Thomas A. A.B., Harvard, 1958	Racine, Wis.
Thompson, Robert D. A.B., Princeton, 1958	Akron, Ohio	Winslow, Robert B. A.B., Princeton, 1958	Ridgefield, Conn.
Ulin, Richard I. B.S., Franklin and Marshall, 1958	New York City	Wolf, Peter M. A.B., Yale, 1957	Metairie, La.
Valuska, James W. A.B., Princeton, 1958	Mingo Junction, Ohio	Zeft, Howard J. A.B., Princeton, 1958	Philadelphia, Pa.
Vogel, James M. A.B., Wesleyan, 1958; M.A., 1959	New York City		

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STUDENTS ACCEPTED FOR THE CLASS OF 1963

Anderson, M. Lanier	Louisville, Ky.	Essandoh, Samuel O.	Apam, Ghana
A.B., Smith, 1959		A.B., Lincoln, 1958	
Arend, William P.	Holland Patent, N.Y.	Feig, Stephen A.	New York City
A.B., Williams, 1959		A.B., Princeton, 1958	
Aronson, William J.	Newton Center, Mass.	Feldman, Martin D.	Mahopac, N.Y.
A.B., Harvard, 1951		A.B., Yale, 1959	
M.S., Massachusetts Institute of Technology, 1953		Ferrari, Dudley A.	Shelburne, Mass.
Assali, Albert V.	Port-au-Prince, Haiti	A.B., Columbia, 1959	
A.B., Harvard, 1959		Fischer, Edwin G.	Darien, Conn.
Bachner, Paul	Miami, Fla.	A.B., Harvard, 1959	
A.B., College of the City of New York, 1959		Fisher, Susan M.	Chicago, Ill.
Banner, Richard L.	Brooklyn, N.Y.	B.S., Chicago	
A.B., Amherst, 1959		Ford, Charles V.	Porterville, Calif.
Barlow, Sally E.	Plainfield, N.J.	A.B., California at Los Angeles, 1959	
A.B., Wellesley, 1959		Fordham, Kenneth	Dundee, Ill.
Barth, Rolf F.	New York City	A.B., Berea, 1959	
A.B., Cornell, 1959		Geller, Martin P.	Brooklyn, N.Y.
Belz, Carl Irvin	Haddonfield, N.J.	A.B., Columbia, 1959	
A.B., Princeton, 1959		Golwyn, Daniel H.	Philadelphia, Pa.
Benjamin, Thomas L.	Providence, R.I.	A.B., Kenyon, 1959	
A.B., Amherst, 1959		Hakanson, Carl M.	Martinsville, Va.
Berk, Paul David	Brooklyn, N.Y.	A.B., Hamilton, 1959	
A.B., Swarthmore, 1959		Heissenbutter, R.	Greenville, Pa.
Bissell, M. LeClair	Signal Mountain, Tenn.	A.B., Thiel, 1959	
A.B., Colorado, 1950		Hoffman, Joel S.	Long Beach, N.Y.
M.S., Columbia, 1952		A.B., Harvard, 1959	
Blacklow, Neil R.	Belmont, Mass.	Horwitz, Stuart S.	New Haven, Conn.
A.B., Harvard, 1959		A.B., Yale, 1959	
Bolker, Ethan D.	Brooklyn, N.Y.	Howie, Dennis, P.	Brooklyn, N.Y.
A.B., Harvard, 1959		A.B., Hamilton, 1959	
Briska, Philip	Washington, D.C.	Jordan, George W.	Denver, Colo.
A.B., Harvard, 1952		B.S., Denver, 1959	
Brown, Arthur L.	Darien, Conn.	Kahn, Mark E.	Brooklyn, N.Y.
A.B., Princeton, 1959		A.B., Columbia, 1959	
Brown, Robert S.	New York City	Kamins, Lloyd	Milwaukee, Wis.
A.B., Harvard, 1959		B.S., California Institute of Technology, 1959	
Bruce, David H.	Wilmington, Del.	Kauderer, John G.	New York City
A.B., Harvard, 1959		A.B., Columbia, 1959	
Brudner, Harvey J.	New York City	Kem, David C.	Richmond, Ind.
B.S., New York University, 1952		A.B., Earlham, 1959	
M.S., New York University, 1954		Krakoff, Lawrence	Columbus, Ohio
Burd, Robert M.	New York City	A.B., Yale, 1959	
A.B., Columbia, 1957		Kreiter, Richard	Davenport, Iowa
Cannon, Wayne D., Jr.	Montevideo, Uruguay	A.B., Grinnell, 1959	
B.S., Yale, 1959		Krick, Warren J.	Washington, D.C.
Chun, Clyde W.	Marblehead, Mass.	A.B., George Washington, 1959	
A.B., Harvard, 1959		Larsen, Philip R.	Cincinnati, Ohio
Churchill, Winthrop H.	Cambridge, Mass.	A.B., Princeton, 1959	
A.B., Harvard, 1959		Lessneski, Albert	Elizabeth, N.J.
Cohen, Roger David	Newton Center, Mass.	A.B., Princeton, 1958	
A.B., Harvard, 1959		Lewis, Myron	Memphis, Tenn.
Coli, Robert Dante	Warwick, R.I.	A.B., Dartmouth, 1959	
A.B., Tufts, 1959		Lindy, Jacob D.	Philadelphia, Pa.
Deakins, Susan M.	Signal Mountain, Tenn.	A.B., Yale, 1959	
A.B., Smith, 1958		Long, Thomas V., II	Thomasville, N.C.
De Francisco Zea, C.	Mexico, Mexico	A.B., North Carolina, 1959	
B.S., Chicago, 1959		Mackler, Gerald	West Hartford, Conn.
Dickey, Richard A.	Indianapolis, Ind.	A.B., Harvard, 1959	
A.B., Kenyon, 1959		McSherry, Elisabeth	Milton, Mass.
Dickinson, Louis E.	McCook, Neb.	A.B., Radcliffe, 1960	
A.B., Harvard, 1959		Maletzky, Avron J.	Schenectady, N.Y.
Dushman, Miriam B.	Bronx, N.Y.	A.B., Princeton, 1959	
A.B., Barnard, 1959		Manzler, Alan D.	Cincinnati, Ohio
Ehrlich, Michael G.	New York City	A.B., Princeton, 1959	
A.B., Dartmouth, 1959			

Mauerman, George S. A.B., Vanderbilt, 1959	Monroe, Wis.	Saks, Joel W. A.B., Wesleyan, 1959	Springfield, Mass.
Morgan, Daniel D. A.B., Yale, 1959	Hamden, Conn.	Schaefer, Robert A.B., Yale, 1959	Dobbs Ferry, N.Y.
Muehlbauer, Peter F. A.B., Columbia, 1959	Brooklyn, N.Y.	Schecter, Alan N. A.B., Cornell, 1959	Brooklyn, N.Y.
Muhm, Harvard Yale A.B., Yale, 1959	St. Charles, Mo.	Scheiner, David L. A.B., Princeton, 1959	Margate, N.J.
Murphy, John T. Musher, Daniel M. A.B., Harvard, 1959	Chappaqua, N.Y. New York City	Scherzer, Alfred A.B., Columbia, 1949 M.S., 1950; Ph.D., 1959	New Haven, Conn.
Naiman, Peter Todd A.B., Williams, 1959	Brooklyn, N.Y.	Schneider, William B.S., Tufts, 1959	Mount Vernon, N.Y.
Neer, Eva Julia A.B., Barnard, 1959	New York City	Schonberg, Stephen A.B., Princeton, 1959	Hempstead, N.Y.
Nelson, Bruce David A.B., Bowdoin, 1959	Portland, Me.	Schwartz, David A.B., Harvard, 1959	University Heights, Ohio
Nevel, William G. A.B., Columbia, 1959	Walden, N.Y.	Serxner, Jonathan A.B., Columbia, 1959	Brooklyn, N.Y.
Newberg, Marc A.B., Williams, 1959	Jamaica, N.Y.	Shupack, Jerome A.B., Columbia, 1959	Brooklyn, N.Y.
Noble, John, III A.B., Harvard, 1959	Beirut, Lebanon	Silbermann, George A.B., Oberlin, 1959	New York City
Ortiz, Carmen I. A.B., Wellesley, 1959	Santurce, Puerto Rico	Silver, Lawrence A.B., Yale, 1959	Cedarhurst, N.Y.
Page, Robert B. A.B., Amherst, 1959	New York City	Simmonds, John A.B., Yale, 1959	Arlington, Va.
Paris, George L. B.S., Carnegie Institute, 1959	Pittsburgh, Pa.	Smith, Charles M. A.B., Princeton, 1959	Chillicothe, Ohio
Parker, James D. A.B., Cornell, 1959	Glen Ridge, N.J.	Snyder, Bernard A.B., Franklin and Marshall, 1959	Harrisburg, Pa.
Perlman, Richard D. A.B., Princeton, 1959	Brooklyn, N.Y.	Steinfeld, Leonard A.B., Princeton, 1959	Bronx, N.Y.
Pleasure, David E. A.B., Yale, 1959	Middletown, N.Y.	Steinman, Charles A.B., Princeton, 1959	Brooklyn, N.Y.
Pohlman, Mark H. A.B., Princeton, 1959	Columbus, Ohio	Stevenson, Charles A.B., Princeton, 1959	Grosse Ile, Mich.
Poppa, Geraldine A.B., Vassar, 1959	Brooklyn, N.Y.	Taylor, Marc J. A.B., Amherst, 1958	Mount Vernon, N.Y.
Rein, Joel Mark A.B., Columbia, 1959	Riverdale, N.Y.	Tiley, Frederick A.B., Princeton, 1959	Lehigh, Pa.
Reynolds, James C. A.B., Harvard, 1959	Santa Monica, Calif.	Tull, Dade L. W. A.B., Vassar, 1955; M.A., 1957	Clemson, S.C.
Rittenberg, Stephen A.B., Columbia, 1957	Englewood, N.J.	Wainstein, Eli A.B., Pennsylvania, 1959	Forty Fort, Pa.
Rodnan, Jeanette C. A.B., Barnard, 1959	New York City	Weksler, Babette A.B., Swarthmore, 1958	Teaneck, N.J.
Rosenbaum, Michael A.B., Yale, 1959	Larchmont, N.Y.	Wider, Jerry A. A.B., Princeton, 1959	Bay Shore, N.Y.
Rosenblatt, Martin A.B., Princeton, 1958	Montclair, N.J.	Wolfinger, Howard A.B., Haverford, 1959	Greencastle, Pa.
Rudders, Richard A. A.B., Princeton, 1959	Brooklyn, N.Y.	Wood, Dean Scott A.B., Harvard, 1959	Watsonville, Calif.
Ryder, Richard A. B.S., Rochester, 1956	Boonville, N.Y.	Zener, Julian C. A.B., Harvard, 1959	Durham, N.C.
Sachs, Frederick A.B., Princeton, 1959	Brooklyn, N.Y.	Zweiback, Eugene A.B., Princeton, 1959	Omaha, Neb.

CONDENSED ACADEMIC CALENDAR

The complete Academic Calendar for the year 1959-1960 may be obtained from the Secretary of the University.

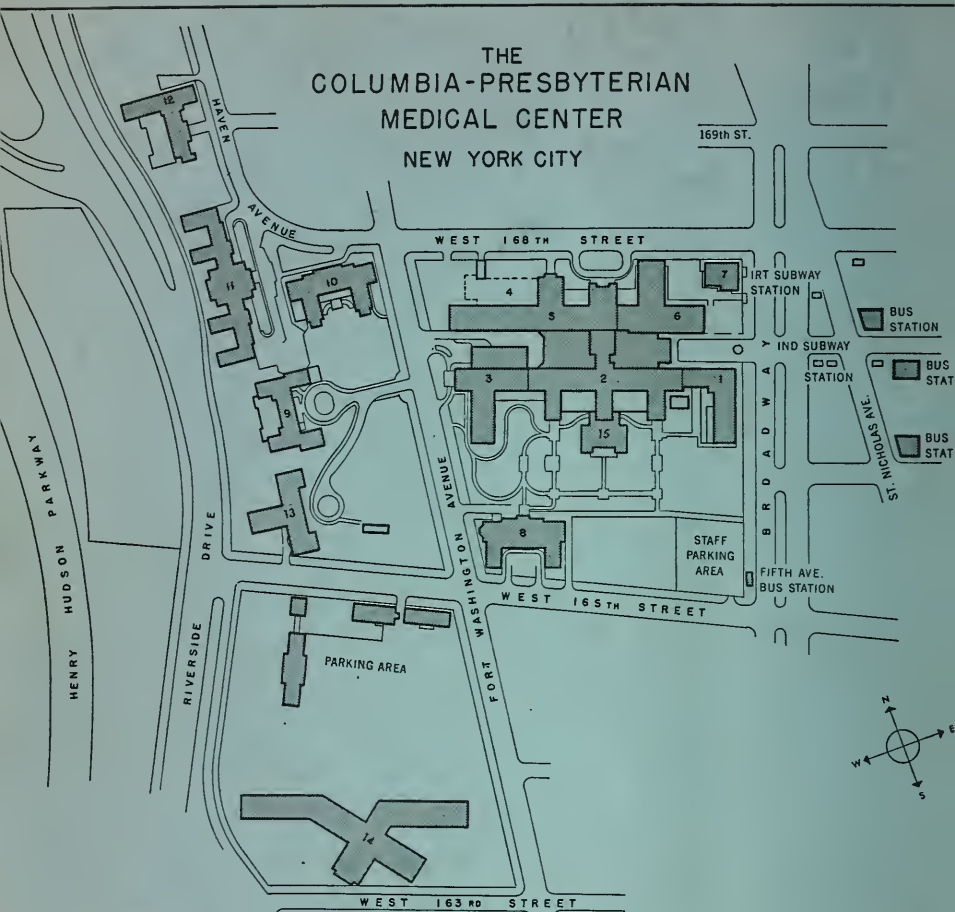
1959

- May 21 Thursday, through May 22, Friday. Registration (including payment of University fee) for the Third- and Fourth-Year Classes.
- June 1 Monday. New academic year begins for the Third- and Fourth-Year Classes.
- August 3 Monday. Last day for filing application or renewal of application for all degrees and certificates to be conferred in October. The privilege of later application may be granted on payment of a late fee.
- September 10 Thursday, through September 12, Saturday. Registration (including payment of fees) for First- and Second-Year Classes.
- September 14 Monday. Classes begin.
- October 8 Thursday. Last day for filing at the office of the Registrar dissertations previously approved for the degree of Med.Sc.D., to be awarded in October.
- November 3 Tuesday. Election Day. Holiday.
- November 26 Thursday. Thanksgiving Day. Holiday.
- December 1 Tuesday. Last day for filing application or renewal of application for all degrees and certificates to be awarded in February. The privilege of later application may be granted on payment of a late fee.
- December 21 Monday, through

1960

- January 2 Saturday. Christmas holidays.
- February 1 Monday. Last day for filing application for Cutting and Ellis Fellowships.
- February 22 Monday. Washington's Birthday. Holiday.
- March 1 Tuesday. Last day for filing application or renewal of application for all degrees and certificates, except doctoral degrees, to be conferred in June. The privilege of later application may be granted on payment of a late fee.
- April 1 Friday. Last day for filing at the office of the Registrar dissertations for the degree of Med.Sc.D., to be conferred in June.
- April 11 Monday, through April 16, Saturday. Easter holidays.
- May 23 Monday, through May 27, Friday. Final examinations.
- May 30 Monday. Memorial Day. Holiday.
- June 1 Wednesday. Conferring of degrees.

THE
COLUMBIA-PRESBYTERIAN
MEDICAL CENTER
NEW YORK CITY



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|---|---|
| 1. BABIES HOSPITAL | 7. N. Y. CITY DEPT. OF HEALTH
SCHOOL OF PUBLIC HEALTH AND
ADMINISTRATIVE MEDICINE |
| 2. PRESBYTERIAN HOSPITAL
N. Y. ORTHOPAEDIC HOSPITAL
SLOANE HOSPITAL
SQUIER UROLOGICAL CLINIC | 8. INSTITUTE OF OPHTHALMOLOGY |
| 3. HARKNESS PAVILION | 9. MAXWELL HALL |
| 4. POWER HOUSE | 10. NEUROLOGICAL INSTITUTE |
| 5. COLLEGE OF PHYSICIANS AND SURGEONS | 11. N. Y. STATE PSYCHIATRIC INSTITUTE |
| 6. VANDERBILT CLINIC
SCHOOL OF DENTAL AND ORAL SURGERY | 12. BARD HALL |
| | 13. HARKNESS MEMORIAL HALL |
| | 14. FRANCIS DELAFIELD HOSPITAL, N.Y.C. |
| | 15. PAULINE A. HARTFORD MEMORIAL CHAPEL |

